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## THE BOOK OF FAMOUS SIEGES

#### BOOKS BY TUDOR JENKS

CENTURY WORLD'S FAIR BOOK IMAGINOTIONS OR TRUTHLESS TALES Boys' Book of Explorations GALOPOFF GYPSY DEFENSE OF THE CASTLE MAKING A START A LITTLE ROUGH RIDER CAPTAIN JOHN SMITH CAPTAIN MYLES STANDISH MAGIC WAND SERIES ELECTRICITY FOR YOUNG PEOPLE PHOTOGRAPHY FOR YOUNG PEOPLE CHEMISTRY FOR YOUNG PEOPLE WHEN AMERICA WAS NEW IN THE DAYS OF CHAUCER IN THE DAYS OF SHAKESPEARE IN THE DAYS OF MILTON IN THE DAYS OF SCOTT IN THE DAYS OF GOLDSMITH



From the painting by Sir Educard Populer, P.R.A.

The Catapult, in the Days of the Wars between Rome and Carthage

# THE BOOK OF FAMOUS SIEGES

BY
TUDOR JENKS



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©&cht.9,1909 Cla. A. SEP 11 1909 "No fort so fensible, no wals so strong,
But that continuall battery will rive,
Or daily siege through dispurvayaunce long,
And lacke of reskewes, will to parley drive."

Spenser, Faëry Queene, III, 10, x.



#### **PREFACE**

It is only in modern times that history has come to be anything more than a story of wars carried on between either rulers or peoples. In old times warfare was endless. Every people knew that its lives and its property were safe only so long as they could defend themselves from enemies that had no scruple to prevent them from killing or robbing all foreigners.

The art of making war or of defending a country against its enemies, therefore, was more important than any other study. Success in war was the only path to greatness and the price paid for safety in the possession of land or property. When a people was overcome, its men were slain, its women and children carried into slavery, its homes destroyed or occupied by the conquerors, while its wealth became the plunder of its enemies.

In this state of the world, every town was necessarily a fortress ever ready for attack; and the people living in it were the garrison who expected to defend it whenever enemies appeared.

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The earliest civilised peoples were those who had learned to support themselves by tilling the ground or by keeping flocks and herds, and these settled peoples had to have homes not too often changed. They were surrounded by other peoples, who were hunters and fishermen, or robbers who lived a wandering life and had no scruple in taking by force the property they coveted, and who were attracted by the wealth gathered and stored in settled places. To be civilised, a race had to fight for its home. So it came about that the first victories of civilisation over savagery consisted in being able to defend fortified places against attack.

When there grew up a number of civilised nations, and these came into conflict through the jealousy or the ambition of their kings, the struggle to see which would overcome the other took two forms: the battles in the open field and the attacking and defending of fortresses, or walled towns. Histories tell us much less about the methods of attacking and defending strongholds than about ordinary battles, and yet the story of sieges is certainly as important and in many ways is more interesting than the story of field warfare.

In this book is told how great cities have been taken by able commanders. Out of the hundreds

#### PREFACE

of battlings for fortified towns, those have been selected which give a fair idea of the science and art employed in siege warfare from the earliest times to our own day. It will be found that each siege represents a somewhat different state of the art of war, and usually shows the methods of some great general when stoutly opposed by men not only brave, but skilled in defence, and determined to hold their own against him.

After the early days, when accounts are somewhat mythical, a glance is taken at the siege of Troy, mainly to show how little knowledge of the art of warfare was shown on either side, and then we consider the exploits of the Persians under Cyrus, of the Spartans against the Athenian allies at Platæa, of Alexander against Tyre, and so on, following the art of war as waged by Cæsar, Titus, by the Saracens and the Crusaders, and the great commanders of more modern times down to the Japanese taking of Port Arthur, the most recent of great sieges.

Although no more than a score of sieges are treated, yet these have been selected as types of the rest, and show clearly the various methods of taking cities from the beginning of history to our own times. Another list might have been selected, or

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the number of sieges might have been easily doubled or quadrupled, but it is believed that those chosen are the best for the purpose. To treat of more would have made the accounts too brief.

Whoever reads even so summary a sketch will see at what great cost the nations have preserved their civilisation or their nationality, and will learn that no age has been without its great leaders, its brave soldiers, and its devoted patriots.

TUDOR JENKS.

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#### THE FIRST PERIOD

Ancient Babylonia Siege of Troy Babylon, by Cyrus or Darius Platæa, by Archidamus

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#### THE TAKING OF CITIES

of football as it was played in the old days on many a school playground between two groups of boys chosen by leaders from their own schoolmates, and the same game as it is played today before thousands of deeply interested lookers on by picked and trained teams from the great universities. And yet the object of the two games is not very different. In each case one party struggles to overcome another and to carry, or drive, a ball over the goal line. The difference between the two games consists simply in the fact that one is a mere struggle without any particular science, while the other is scientific from beginning to end.

There is the same difference between the fighting of battles in the earliest days of the world, when two great bodies of men came together and struggled, each to overcome the other, and the battles of later times, when every part of the struggle was directed by the careful study of the science of warfare. Of course there is a certain interest in

every sort of a fight, whether we approve of it or not. This may come from the fact that mankind have always been fighting animals, or it may come from mere curiosity—the desire to see which side will win. But there is all the difference in the world between such an ignorant interest and the really scientific interest and pleasure gained from watching a struggle in which skill, courage, learning, and genius are pitted against the same qualities in worthy enemies.

An old Indian who was taking a party of young men upon a hunting expedition in the West was amused at their excitement over the sport. "Ugh!" he said grimly, "this is nothing; wait until you hunt men." And we may say to those who find excitement in going over the strategy of the football field or in listening to accounts of brilliant plays, that these are "nothing" when compared with the great game of warfare wherein from the beginning of the world men have been forced to stake their lives and those of their wives and children upon the issue of their conflicts.

There is no part of this great story of warfare that is not of thrilling interest, no branch of military science that may not be studied with delight as well as profit. But too often the issue of great

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battles, the winning or losing of the victory, has turned upon mere accident or been decided by overwhelming force. Upon the battle-field, even Napoleon declared that God was on the side of the heaviest battalions, and Cromwell, to his pious motto, "Put your trust in God," added, "but keep your powder dry."

There is, however, another branch of warfare which, when fully developed, became more purely a science. From the very earliest times, when warfare was almost universal, men were forced to gather together for safety. They could not live far apart for fear of attack by wandering foemen. Consequently, not only did they build their homes near together, but they chose for such gatherings the places that aided them to beat off their enemies. They built their towns, which grew into cities, either upon high places easily defended, upon banks of rivers, upon pilings out in lakes, upon islands, or sometimes in thick forests, that they might be safe from attack, or if attacked, might most easily defend themselves.

Hence it followed that, together with the art of fighting in the open, there grew up another art that had to do with the taking or defending of cities; and since the attack and the defence of these strongholds was usually a matter of considerable time, there came about a careful study of ways to repel an enemy or to overcome and capture places. This developed into a complete science in which certain leaders became expert, and what was learned in one age was handed down to the next, so that each generation learned what former ages could teach, and made inventions for themselves toward the perfecting of the science.

The very name "siege" shows that the taking of cities was something which men went about with deliberation. The word means "a sitting down" before a place, so as to work out methods of overcoming it. The very earliest sieges were not, of course, complicated matters. There was a simple method adopted, which may be explained in a few words.

The besieging forces, once they had gathered about the city of their enemies, forced their way directly through the fortifications, which seldom consisted of more than banks of earth, piles of logs, or logs driven upright and close together, making palisades. If the attacking army was strong enough to force its way through these, the struggle became a hand-to-hand conflict, much like an ordinary battle. If they could not in this

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way carry the place, by "assault," as it is called, the only thing to do was to form a ring around the place and to wait until those inside were starved into submission. This sort of siege was not improved upon for many a long century, and it was in this way that the soldiers of by-gone ages, who were armed with spears, bows and arrows, slings, and swords, captured their enemies' cities and overran their lands.

The first improvement in this sort of fighting came about in the early times, when the nations of the earth that possessed a civilisation greater than their neighbours were the Egyptians, the Syrians, the Assyrians, and Babylonians, and the other races around the shores of the Mediterranean. These peoples protected their cities mainly by great earthen or clay walls, by palisades, and by wide ditches or waterways. In order to overcome these obstacles, the besiegers of cities had to devise means of getting across the ditches or climbing over the walls, or of driving the defenders from important points in order that their own men might take them. Their artillery, so to speak, consisted of their archers and their slingers. In order to cross the moats, or ditches, they made use of rafts, inflated skins, or great bundles of reeds, or

of logs of wood. To surmount the walls they carried light ladders of ropes or of wood, to which they attached hooks or stones, so that they could be thrown to the top of the walls and would aid the soldiers in climbing to the top.

It can be readily understood that the possession of such weapons and such methods of warfare did not give the besiegers power to take really strong cities, which were either by nature or by art thoroughly fortified and defended by a force in any way equal to that of the outside enemy. Consequently, many of the early sieges lasted a great number of years and were decided only by the starvation of those within the fortified walls or by the arrival of an army from outside to drive away their foes.

To starve out a garrison it was necessary not only to prevent provisions from reaching those within the city, but at the same time to support the army outside. In places where the soil was rich and crops could be readily raised, both parties might support themselves during a siege by growing the food they needed. If the soil would not support the besieging army, it would have to bring its food and supplies from long distances, and this could be done only where the besieging

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force was numerous enough to guard itself from attack and at the same time to send out strong parties to bring in supplies from the surrounding country.

We shall not be able in one brief volume to describe more than a few of the greatest sieges of history, and we shall select those which are most notable because of the importance of the places besieged, the warriors who attacked and defended them, or the interest of the plans and methods adopted by the besiegers and besieged.

#### THE FIRST PERIOD

S regards the science of warfare, the history of mankind may be roughly divided into five great periods, differing very greatly in length, it is true, but separated from one another by great changes in the methods of making war, due to improvements in the weapons used.

So far as our subject, "The Taking of Cities," is concerned, the main thing which controls the carrying on of a siege and the defence is the question what men are able to throw. For the very idea of a siege supposes that one party is protected from being closely approached by the other. Although a siege may result in a hand-to-hand fight at one part or another of the fortification, this does not come about until after the wall of the fort has been broken through or thrown down, or until the outsiders, by climbing the walls or building up a structure as high as the wall, have brought themselves to the same level, and so may fight once more as if upon level ground. To keep the outsiders from throwing down the wall, breaking

#### THE FIRST PERIOD

through it, or building up a structure that will bring them to its top, the main reliance is upon the use of missiles—artillery of one sort or another.

Things may be thrown for two purposes, both by besiegers and besieged. One is to kill or drive away the enemy's soldiers and workmen, the other is to destroy the things built up for defence or for attack. For either purpose the enemies must get within range. If they have artillery (which name applies quite as much to the old-fashioned machines for throwing beams and stones or arrows as to modern guns) that will send projectiles to a very great distance, then they need not come near the enemy, and neither side can long remain exposed, that is, within range of the fire of the other. So it is that the nature of the weapons used has made great changes in the conditions of sieges, and these changes have brought about the five great kinds of fighting since the beginning of history.

The first of these periods extends from the earliest times, about which we know only through carvings upon old tablets and monuments, down to the time when mechanical engines for throwing missiles were invented, it is said during the reign

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of Dionysius of Syracuse, about four centuries before Christ. This date may not be certain, but at all events it has been handed down as about the time when these great machines were first put to use.

Before this date armies could assail one another at a distance only by means of arrows and darts, or of stones flung by slingers. How long ago these weapons took the place of clubs and stone-throwing by hand we do not know, for they seem to have been in use further back than times of which we have any record. They may have been used ten thousand years ago, or even more. Of course, these small missiles would kill men and animals, but they could not destroy the lighter sort of fortifications nor pierce through breastworks, even though these were merely of light branches woven into basketwork supported by stakes. They could be often warded off also by light shields carried in men's hands, though now and then a strong slinger could succeed in making a masterly shot, such as that with which David slew Goliath. Yet, behind their shields, soldiers were able to advance close to any fortifications, and by means of ladders might force their way over them to a hand-to-hand fight.

For the purpose of destroying the walls them-

#### THE FIRST PERIOD

selves or the enemy's lighter fortifications, the ancients used principally the battering-ram, or a similar engine with a pointed head meant rather to pick a wall to pieces than to break it down. Such were the chief weapons used from the oldest Egyptian times down to the wars of Alexander the Great.

From old carvings we see also that the ancient soldiers knew how to dig under walls and towers, either to undermine and overthrow them or to gain an entrance to a town by an underground passage. But though the carvings show how a city was taken, we cannot give the full story of any siege, and must content ourselves with a sort of general account that will give us an idea of the fighting about the walls of Nineveh, Samaria, Damascus, Kadesh, Calchemish, in the days of such old warriors as Thotmes III—"the Alexander of Egypt"—of Rameses II, of Tiglath-Pileser III, of Gideon, and David.

The stories of most of these early sieges must be much alike in general plan.

#### A SIEGE IN THE EARLIEST TIMES

PERHAPS in a list of sieges the first that is worthy of attention is that of the siege of Babylon, which was taken something more than thirteen hundred years before Christ, or more than two hundred years before the siege of Troy (1184 B.C.) described by Homer. There is not much certainty in accounts of events going back so far as this, but this account describes the city as having been captured by King Ninus (which is a Greek name for the Assyrian King Tiglathi-Nin) and united with his own city, or country, of Nineveh.

This great city, Babylon, had existed since before the dawn of history, and at a later time is said to have been from forty to fifty miles in circumference, or to cover an area about as great as that covered by Philadelphia to-day. Within its great double walls, which are declared to have been three hundred feet in height and over eighty feet thick, was enclosed an area which consisted for the most part of gardens, parks, fields, and orchards. The streets

#### A SIEGE IN THE EARLIEST TIMES

ran at right angles. Outside of the walls was a deep moat, dug when the clay was taken out for the walls themselves, and there were a hundred gates of brass and two hundred and fifty towers in the enclosing structure. It was rather a mighty fortress than a wall. The city was built on two sides of a river, and its halves were joined by a movable drawbridge supported on stone piers. Within the city were great palaces, two at the ends of the bridge, the outsides of which were decorated with coloured bricks, an enormous temple, and other smaller ones; and the river Euphrates, which ran through the city, supplied a reservoir four miles square. The country round about was a great flat plain, divided by marshes, rivers, and artificial canals. Most of the travel was in big flatboats.

Whether or not the siege of Babylon by Ninus was exactly like all other sieges of these ancient times we need not inquire; we know enough of the warfare of those days to be able to describe about what must have taken place. But it is probable that in these earliest days the walls of Babylon were nowhere near so high as they became when the city was at its strongest. Had the walls then been as high as three hundred feet, probably the city could not have been taken by an army like that

brought against it under King Ninus. The strongest part of the army which King Ninus led consisted of a force of horsemen, which, far in advance of the main body of his troops, rode over the level plains in order to protect the rest from surprises and to give timely warning of the presence of the enemy in case any outposts of the city should be met with.

The coming of these cavalrymen would put to flight all the inhabitants of the country, who, in peaceable times, occupied the fields and villages of clay huts, thatched with rushes and branches, built here and there along the great network of canals and watercourses that made this plain, now a desert, one of the most fertile regions of the earth. We may be sure that the Babylonians had posted horsemen of their own miles from the city, in order that they might have early warning of the coming of the enemy. These outposts would be the first to arrive with news that the enemy's army was at hand. Riding at full speed over the plains, and dashing over the bridges, their horses lashed to the highest effort, they appeared at the bronze gates of the city, gave the password, and carried the warning to the commanders of the garrisons stationed in the many towers along the great wall.

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Then would be lighted the beacons that, by their light at night, or smoke in the daytime, called the defenders of the city to arms. Hasty orders sent the bodies of archers and slingers to their posts on the broad top of the wall, which was wide enough for a number of chariots to drive abreast along its top.

Meantime, following closely after the galloping scouts, came the country people, in much the same manner as, some seven hundred years later, they are described by Macaulay as thronging into the city of Rome when it was threatened by Lars Porsenna:

A mile around the city
A throng stopped up the ways;
A fearful sight it was to see
Through two long nights and days.
For aged folk on crutches,
And women great with child,
And mothers sobbing over babes
That clung to them and smiled,
And sick men borne in litters
High on the necks of slaves,
And troops of sun-burned husbandmen
With reaping-hooks and staves.
And droves of mules and asses,
Laden with skins of wine;

And endless flocks of goats and sheep, And endless herds of kine, And endless trains of waggons That creaked beneath the weight Of corn-sacks and of household goods Choked every roaring gate.

Although Macaulay's lines refer to a time so many centuries later, there can be no doubt that, except that boats were more frequent than waggons, they paint a true picture of the flight of the dark-skinned country folk to the great stronghold of Babylon before the advancing army of Ninus.

When at length the enemy are within sight upon the flat plain, the brazen gates are shut fast, the outer drawbridges are drawn up or destroyed, the soldiers stand at their posts behind the breastworks on the edge of the wall, and the siege is begun.

Having advanced to a place just out of range of the arrows and stones from the slings, the forces of King Ninus prepare their camp, spreading around the city upon all sides, making their campfires, putting up their tents of skins stretched upon branches, and settling themselves for a long siege. At once they begin building a wall of their own

# A SIEGE IN THE EARLIEST TIMES

to protect their camp from any sudden attack on the part of the Babylonians. They know that there are heavy forces of soldiers behind those enormous walls, and that if the sentinels upon the top of the walls can spy out weak places in the line of besiegers, at any moment one of the great gates may be flung open and a column sent out to attack the weak point. If such attacks are made, it is but for the purpose of delaying the work of the besieging army, for it is too strong to be put to flight.

The Babylonians know that their main strength is in keeping behind their walls and in making the work of the besiegers as difficult and as slow as possible. But though the work may be delayed, it cannot be stopped when the besiegers are so strong. The army outside has brought with it spades and hoes and other tools for digging, and gradually the soft clay and sand is dug out to make a ditch and then piled up into a wall high enough to shelter the soldiers from the arrows and the stones that might reach them, even though the range be a long one.

This wall once completed, a more dangerous task must be undertaken. This is the building of a mound. The outside wall is really no more than a

protection for the besieging army, making it hard for the Babylonians to deliver attacks against them.

The mound is the first means of attack. Having selected some part of the city wall which seems not so well defended or not so strong as the others, the soldiers of King Ninus bring baskets full of clay, which they empty over the front of their own wall, very much as modern labourers begin the building of a road across a valley. Load after load of the earth is poured over the edge, and gradually between the two walls a cross wall is built up, extending from the outer wall and rising higher as it nears that of the city.

During this work there is a fierce battle between the bowmen and the slingers on each side. Large forces of the Babylonians gather upon their own wall opposite the growing mound and discharge their arrows and the stones from the slings against the workmen who are carrying the earth that goes to building the mound. The outsiders in the same way do their best to protect their own men and to slay the Babylonians upon the walls. Every step in the building of the way between the two walls makes the danger greater, since, beginning almost out of range, the workers are forced, as

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the mound lengthens, to encounter a hotter and hotter rain of missiles from the marksmen of the city.

Although many of them wear an armour of metal rings or plates sewed to cloth, of quilted garments or of leather, and, besides, protect themselves behind great wicker and leather shields, which are planted upon the mound as they advance, such a work cannot be carried on without great loss of life, a loss greater outside than within since the Babylonians have the advantage of fighting from a higher wall, thus shooting downward upon their enemies, and are protected by better fortifications. But owing to the fact that not many archers and slingers can find room at the point on the walls opposite which the mound is being built, the besiegers, by constantly sending reinforcements, are able to carry the mound steadily forward until it actually reaches the wall of the city.

They have selected for attack a point midway between two of the great towers along the city wall, so that they may, as far as possible, escape the missiles sent from these. Once having reached the walls, the workers are actually safer than before, since the bowmen and slingers are forced to expose themselves over the edge of the wall in order

to fire straight downward, and thus offer themselves as marks for the arrows and stones of the besiegers who shoot from along the mound. Having completed the cross wall between besiegers and besieged, there comes the problem of breaking down the city wall, or of climbing over it. Although only a narrow column of men can find footing upon the mound, yet there can be brought against them a force not very much greater.

Probably the final attack will take place at night. This can hardly be a surprise, since great fires are kept lighted by the besieged along their own wall. But even the great fires can give but an uncertain light, and the work of the marksmen is made less deadly by the flickering flames and the dark shadows.

When the column that has been formed for the assault has reached the city wall, the fiercest struggle of all takes place. Great beams of wood, caldrons of boiling water, flaming pitch, stones—everything that is heavy—is brought to the edge of the wall and hurled down upon the soldiers below. Meanwhile, by means of long ladders, beams of wood, bundles of reeds, the mound is raised in height. Though the brave soldiers fighting their way slowly upward lose many of their number,

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they are reinforced by fresh soldiers as fast as they fall.

While the besiegers are thus making good their footing upon the wall, the Babylonians within are building breastworks across their own wall on each side of the point where the besiegers have gained a foothold, in order to prevent entrance to the city. Along the top of the wall begins a hand-to-hand fight, the besiegers trying to clear the defenders from its top, the defenders resisting stoutly every step in advance. But where the besieging army is the stronger and is able to gain complete possession of a large portion of the wall, it is not long before they can tear this down, since it is always easier to destroy than to build up. Having thus broken a way into the city, they can more easily destroy any defences that may have been built behind the opening they have made, since these are usually much smaller and weaker than the wall already taken. In this way entrance to the city is gained, and the breach once made, the enemy once established within the walls, the advantage is upon their side, for the simple reason that they have what is called the interior line of defence—a phrase that requires a word of explanation.

Imagine a small body of men attacked by a sur-

rounding crowd. Unless the odds are too great, this central body has the advantage of position, since it has a smaller surface to defend, a smaller distance to go to strengthen a weak point of the force. Suppose, for example, that the forces of King Ninus have broken their way into Babylon and are advancing through a gap in the wall. The force brought against them must surround them in order to stop their advance. They must occupy a wider space, and can less easily send more men to any weak point that needs reinforcement. Meanwhile the attacking party are immensely strengthened by their own bowmen and slingers, who, from the top of the captured wall, can rain missiles down upon the heads of the Babylonians who are resisting the advance of the besiegers.

Nevertheless, there may be many a long and stubborn fight before the city is finally taken; but in these fights there is no great advantage on the part of the citizens as against their enemies, and if the attacking force is more numerous, the breaking open of the wall and the entry of the troops from outside lead sooner or later to the downfall of the city.

In battering down walls, attacking armies from the very earliest times, as we know from old stone carvings, made great use of the battering-ram. This was a long, heavy log, often armed at the head with a heavy metal point, and hung from its middle, so that it could be swung forward and backward, delivering at each swing a blow the force of which depended not only on the weight of the ram, but also was often greatly increased by bodies of soldiers, who lent all their strength to aid the swing of the instrument. Sometimes the rams were hung in a frame that was roofed over and protected at the sides, and these could be pushed forward upon wheels. After the mound had given a way for advancing the battering-ram, the thickest wall built of small bricks could not long sustain its battering blows.

Such was the method of attacking the great cities that grew up in the vast plain where the story of civilised mankind begins. But in the next siege we shall see that even the little skill shown in taking these cities was not known to the early Greeks and the Trojans.

HE attack upon Troy, which is supposed to have taken place very nearly twelve centuries before the birth of Christ, is, without doubt, a less skilful example of the art of taking cities than were many that preceded it. Certainly, in the story as it is told by Homer, there seems to be little more military art used in taking the city than might have occurred to the minds of a crowd of small boys or African savages.

It may be that there was more use of devices in taking the city than Homer cares to mention, or, rather, we should say, than are told of in the poem or series of poems that are attached to the name Homer. The object of these poems was to show the bravery and the skill in the fighting of certain leaders of the two forces. Both the poet and his audiences cared little or nothing about how the city was attacked, and cared a great deal to hear of the boasting speeches and personal combats with spear, shield, and sword, wherein the great fighters,

Achilles, Agamemnon, Hector, and Paris, played the part of stage heroes.

Next in interest to these personal fights came the stories of how gods and goddesses came down from the upper air to help one warrior or to trick another. The whole story of the ten years during which the Greek fleet was tied up along the shore and the Greek army was encamped upon the plain around the walled city, shows us, therefore, little except the quarrelling and fighting, the grief and joy, of the petty kings and chieftains upon whom both armies depended for success. Even in the method of their fighting there is nothing scientific; it is a matter only of which fighter is able to strike the hardest blows, or to throw his spear with most force, or to run away quickest when overcome—as no Greek warrior of those times ever hesitated to do.

The American reader of the "Iliad" can hardly help noticing the strong likeness between the warfare carried on by Greeks and Trojans and that waged between the American Indian tribes at the time when the white men had but recently come to America. If there be an advantage, it is upon the side of the American Indians, in that there seems to us something more admirable in their silent fighting, their stoical bearing of wounds

and injuries, and their manful endurance of whatever fate sent them. According to Homer, the Greeks shouted as they fought, to terrify the enemy and to encourage their own side, and they burst into tears when hurt, and even yelled with agony when in pain.

The honours to be gained in battle were alike in the two cases, as the Indian strove to take his enemy's scalp, and the Greek did his best to capture his enemy's armour. As the Indian chief would ride out and challenge his bravest enemy to single combat, so did the Greek heroes, and in both cases the important movements of the battle were delayed until the question of strength of the two champions could be settled—a matter that really should have been of no importance. Imagine, if you please, a general of to-day challenging to single combat a general of an opposing army, while the troops gathered as if in a football field to see what would come of it!

In the ten years during which the siege lasted it would seem that the Greek army was strong enough at least to maintain its place around the city in spite of the efforts of the Trojans to drive them away; and if the Greeks had known enough, there were many ways by which the Trojan wall

could have been breached or undermined and thrown down, or an opposing mound like that of the ancient Eastern warriors could have been carried to the walls, and the city thus captured.

But although we read in Homer of the Greeks building a wall to protect their camp, there is no mention of any besieging work being carried toward the wall of the city itself.

In the early part of the poem we have, in Book Third, Paris challenging Menelaus to single combat, and the duel following; in the next book is a battle between the armies, merely an undisciplined struggle of two bodies of armed men in the open. In the seventh book we see the Greeks building a wall about their camp, apparently for protection only, after the loss of the battle, since the Trojans are shown encamping on the field. Half way through the poem, in Book Twelfth, we find the Trojans, under Hector, trying to assault the Greek camp in turn. In this attack the enemy are unable to force their way across the ditch at the foot of the wall, and are compelled to descend from their chariots and attempt an attack on foot, the army having been divided into five bodies. Then the hero, Sarpedon, succeeds in breaking through the wall at one point, while Hector, throw-

ing an enormous stone against one of the gates, breaks it down, and the Trojans drive the Greeks from their camp and their ships. The only artillery they used, if we may call it so, is stone-throwing, and the enormous stone cast by Hector is the only missile that seems worthy to be thought of as an attempt at bombardment.

But even in this book Homer gives more space to a marvellous portent, an eagle in the sky in conflict with a snake, than to the operations that resulted in breaking through the Greeks' defensive wall. A few words, however, show us the Trojans trying to dig away the mounds of earth and to set fire to the beams that support the earthworks, while the Greeks, upon top of the intrenchments, shower the besiegers with darts and arrows. This fight, by the way, is said to have taken place in a snow-storm.

In the midst of this busy scene the poet represents his fighters as pausing now and again to deliver long operatic speeches. But perhaps, as in the opera, this touch is not meant to be realistic. The actual breach of the wall made by Sarpedon, the Trojan champion, was accomplished by the use of a lever, which pried apart the great stones, and in the actual passing of the wall there is a line to

show that the Trojans made use of ladders, or of some similar contrivance.

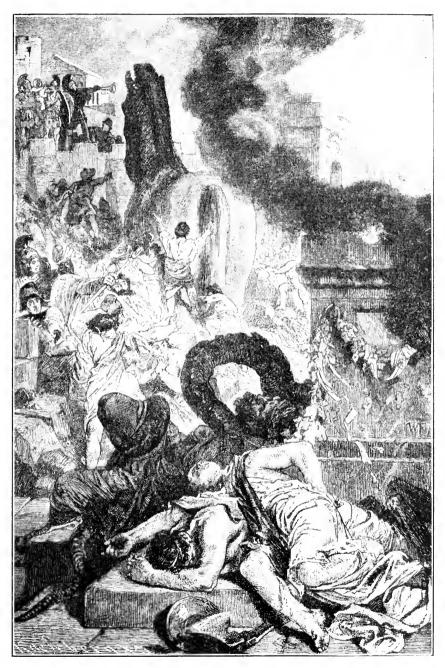
The return of the Greeks to the battle is preceded by a shower of stones and arrows from the Greek marksmen, and the career of the victorious Trojans is cut short by a strong body of Greeks who resist them under the command of the two Ajaxes. But the final repulse of the Trojans comes about through the downfall of Hector, struck by a stone thrown by Ajax. And again the Trojans betake themselves within the city, little or nothing having been accomplished by their sortie.

Another attack of the Trojans is more successful in destroying the Greek wall, and the Trojans reach even the first line of the Greek ships, but are once more repulsed. Of course, like many other incidents about the city, this attack and repulse of the Trojan warriors is regarded as being brought about by the work of the gods, who interfered every moment to aid a friend or thwart an enemy. When the Trojans are pursued back to their walls and attempt to make a stand against the Greeks, Hector is frightened and caused to take refuge in the city by the appearance of the god Apollo.

When once more the Greeks appear advancing

against the walls of the city at the very beginning of Book Twenty-second, we at last hear of what looks like a systematic method of attack, for Homer tells us how the Greek soldiers made their advance under the protection of their shields. The old Greek temples were covered by a roof known as a "testudo," and probably from its resemblance to this roof, the method of protecting themselves by holding their shields over their heads is likewise called the testudo, a name that has survived to our own time in natural history, since it has been applied to the tortoise, because his shell is formed of plates closely set together and therefore resembles the ancient roof-like structure of shields under which soldiers were accustomed to protect themselves from arrows and other missiles in advancing against a besieged city. It is doubtful, however, whether the Greeks actually made the skilful joining of shields into a single roof over their heads that was afterward adopted by the Romans, and no doubt had been used by many other nations before them. Homer's Greek line simply speaks of their resting their shields upon their shoulders, and he does not give us any reason to suppose that this was not done by each soldier singly.

As to the final capture of the city, there are



The Wooden Horse at the Siege of Troy



some authorities who are inclined to doubt the whole story of the great wooden horse, stating that it is only a poetical way of expressing the fact that the Greeks gained entrance into the city by treachery through the opening of a gate that was known as the "Horse" gate. It has been said, too, that the episode of the horse may come from a confused legend recording that a battering-ram was used possibly with a horse's head. On the other hand, it does not seem likely that so peculiar a story, so full of detail, and connected closely with many other events handed down from antiquity, was entirely an invention. We may, if we choose, accept it, and believe that a small body of soldiers could have been concealed in a hollow image, a great horse, and once within the city, could have stolen out and opened the gates to their comrades, particularly at a time when the Trojans believed the siege to have been abandoned. It was natural that the close watch over the wall should be given up, that only a small body of men should be left at the gates, and that a body of men, once within the city, could have held their own against an attacking force around one or two of the gates until the return of the Greek army from the island Tenedos, to which they had retired.

Once within the city, the story of the siege is at an end; but from one or two incidents during the fight within the walls we may gather something about the structure and the strength of the defences. Thus, while the Greeks were trying to break into the Trojans' citadel, we are told, in the "Æneid," how a big tower on the top of the palace was loosened from its foundations and toppled down upon their heads by the work of one or two Trojans. As this is spoken of as a "lofty" tower, from which the whole of Troy could be viewed, it was certainly looked upon as a main feature of the palace. We may, therefore, get some idea of the size and importance of the building when a "main feature" of it could in a short time, by the use of levers, be torn from its foundations and hurled down upon the attacking Greeks.

Another incident of the same attack was the destruction, by Pyrrhus, the son of Achilles, of a great palace gate, which Pyrrhus beat from its fastenings, single-handed, wielding an axe. These events seem to point out that the buildings, the palace, the citadel, the walls, were not of very massive construction. Probably they were built mainly of bricks, after the usual fashion in neighbouring parts of Asia, and partly of stone and woodwork.

Certainly if they had been of the massive masonry that investigators have found in some even more ancient cities, we should not hear of their destruction under so feeble an attack.

It will be seen by this brief account of the siege of Troy that it was of little importance from a military point of view. Its greatness consisted in its being made the subject of a great poem, and in its connection with the Grecian mythology—the most poetic and fascinating series of fairy stories, myths, legends, that the world has ever known.

To the student of military affairs the fighting around Troy seems crudeness itself. The main object of the campaign, the taking of the city, appears to interest the two armies least of all the affairs that occupy their attention. Personal squabbles, single combats, grand speeches, visions of gods and goddesses—of all these Homer tells us with a force, vigour, and simplicity no poet has since equalled. But a tribe of savages in Africa, to say nothing of the American Indians at their highest point of development, would have used more effective means and more ingenuity in taking a fortified place than can be found by a close reading of the "Iliad" and the "Odyssey," or even of the "Æneid," where Virgil has continued Homer's

story. Nor is it easy to understand why this should have been so.

The Greeks, at least, were as practical-minded as any people of the world. Their land was full of fortified places, their remote forefathers had built enormous structures, which seem massive to us who dig them up to-day. Yet, clever craftsmen as they were, they do not seem to have brought into use the devices for taking cities which had been known centuries before in Egypt and Babylonia, as we see them depicted upon temple walls, and also had been used in a land with which the Trojans must have been in communication—that is, in the regions around the Tigris and Euphrates, where Assyria and Babylon were situated.

In the next great sieges of which history tells us, some five or six centuries later, there is at least some science shown in the taking and defending of cities and forts. In fact, as we have already pointed out, the Greeks and Trojans were far more unskilful in these matters than were the great races in Babylon, Assyria, and Egypt many years before their times. The old carvings show that these people knew how to use the battering-ram, how to undermine walls, how to build great mounds

of earth up to the city walls, and also how to meet these different kinds of attacks.

Our Bible has many references to show that the Jews had learned these arts from their neighbours, and, like them, knew how to fight with slings, arrows, rams, ladders, and other weapons. But there is no need to do more than refer to this, since the arts of those early times remained unchanged and were employed by later generals. We shall return, then, to the city of Babylon, and tell of its taking by the Persians under Cyrus or one of his generals.

# THE SIEGE OF BABYLON, 538 B.C.

by Cyrus only those facts which wise men of to-day are willing to accept, the story would be a brief one indeed. More than five hundred years before Christ this siege took place, and those were not days of exact history. The accounts that come to us were largely mixed with fables and with bits of stories gathered from tradition. Which are true and which false, there is nothing to show.

That the city was taken by the Persians there is ample evidence; probably the general way of taking is correctly stated, though some say that it was another than Cyrus who used the plan; and the little anecdotes of his doings at the time may or may not be true.

The story of his early life is not unlike that of Romulus or of Œdipus—the grandson of a king ordered to be left exposed to die because of a prophecy that he should take his grandfather's throne. Cyrus was brought up by a shepherd or herdsman, and only in manhood came back to

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the court. He became king 559 B.C., and was still a young man when, in command of the Persians, he set forth to conquer the mighty fortress-city, Babylon, then ruled by King Belshazzar.

It is difficult for us to determine just how lofty were the walls and how strong the defences of this ancient city. Instead of telling us accurately about such matters, the older historians tell how Cyrus, while on the march toward the city, arrives at a little river, and is aroused to a mighty wrath against it, because one of his sacred white horses is drowned in crossing the stream. Like an angry child, the Persian king vows that the river shall no more run, and sets his great army to digging three hundred and sixty canals into which he drains the river, leaving its bed dry.

Arriving at Babylon in the spring of the year, he fights a cavalry battle with the Babylonian outposts, who soon retreat within the walls, close the gates, and settle down inside, confident that no human power could overcome their defences, which were now at their full height, and probably far stronger than when Ninus took the city.

When Cyrus's army was drawn up around the enormous circuit of the widespread city, it looked so small as to excite the derision of the Babyloni-

ans, gazing indifferently upon it from the battlements of their lofty walls. And apparently they were justified. The ordinary way of taking cities at that time was to build a mound high enough to raise the besiegers to a level with the top of the walls. Now and then, if wood was plentiful, great towers were used instead of lofty mounds. To destroy these mounds, or towers, the besieged people would dig great mines below them, that the structures might fall in; or, when besiegers were ready to climb over the walls, they were met with boiling water, burning oil, or pitch, while showers of stones and arrows came from both sides and were received upon great shields. If the mound or tower could not be destroyed, at least the besieged could build towers of their own opposite the threatened points, and could raise these as fast as the besiegers raised theirs.

The walls of Babylon, as we have already noted, are said to have been upward of three hundred feet high, at the very least, and we can understand the amused smile with which the Babylonian aristocrats looked down upon the feeble Persian force that crept, ant-like, along the great flat plains far below them. Cyrus, however, was not such a commander as those against whom the Baby-

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lonians had fought before. He had with him the most valuable military engine in the world—a bright and ingenious brain—and he soon succeeded by strategy where force might have been despised.

When cities could not be taken, the commanders were accustomed to blockade—that is, to build ramparts around on every side, and then, encamping, to wait until the provisions inside the city were consumed and starvation delivered the inhabitants into their hands. The Babylonians judged by what they saw that Cyrus had adopted this plan, for as they took their usual outings in their chariots upon the broad driveway along the walls they could see the busy Persians digging a ditch around their city and throwing the earth into an embankment on its farther side.

This, to the Babylonian gentlemen, was an even greater joke than the first arrival of their foes, for every well-informed citizen knew that in the granaries and reservoirs of the great city were stored sufficient food and supplies to support the whole city for twenty years. There was something very amusing in imagining the young Persian, Cyrus, passing the time from his early youth to middle manhood in picknicking on the plains around the

walls of Babylon, while the citizens went about their daily affairs as little disturbed as if swarms of ants were raising ant-hills out there upon the great plains far below.

It was really a popular recreation to take note of the doings of the Persians, who, as Xenophon tells us, next built tall towers (which must have seemed like pygmies, viewed from the lofty walls above) here and there along their ramparts. These were set upon the trunks of tall palm-trees, apparently as if upon stilts, for it is said that Cyrus wished the Babylonians to believe that they meant to provide against sorties. Really the purpose of these towers was far different. It may be that Cyrus's plan was suggested by his foolish anger against the little river he had crossed. At all events, when the Babylonians had begun to lose interest in the Persians' puny fortresses, and had returned to their daily round of business and amusement, Cyrus took the occasion of a great feasting and banquet within the city to connect his long trench by short canals with the river Euphrates. Through these little canals the waters of the river were led away into the long trench or, as Herodotus says, into a great reservoir that had been dug by a former queen of Babylon, and hour by hour its

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depth was decreased. When the waters were sufficiently lowered, so that the Persians could walk in its bed, Cyrus sent a strong force along the course of the river until they came to where it entered beneath great gates in the walls into the heart of the city of Babylon.

In order to distract the attention of the guards, Cyrus had ordered a feigned assault to be made here and there against the walls or gates, and while these attacks were being repulsed, the forces that he had sent along the bed of the river succeeded in forcing their way into the centre of the city. As I have said, it was a time of feasting and merrymaking. The Babylonians were taken completely unawares, were unarmed, many of them no doubt had drunk too much, and in a few hours Cyrus had seized the strong citadels and was in possession of the city. Here is the story as Herodotus tells it: "The Persians, who had been left for the purpose at Babylon by the river-side, entered the stream, which had now sunk so as to reach up to about midway of a man's thigh, and thus got into the town. Had the Babylonians been apprised of what Cyrus was about, or had they noticed their danger, they would not have allowed the entrance of the Persians within the city, which was what ruined them utterly, but would have made fast all the street-gates which gave upon the river, and mounting upon the walls along both sides of the stream, would so have caught the enemy, as it were, in a trap. But, as it was, the Persians came upon them by surprise, and so took the city. Owing to the vast size of the place, the inhabitants of the central part (as the residents at Babylon declared), long after the outer portions of the town were taken, knew nothing of what had chanced; but as they were engaged in a festival, continued dancing and revelling until they learned the capture but too certainly."

The capture of a great city by a trick, or rather by shrewdness against stupidity, shows how ancient sieges were often determined by simple happenings. Though Xenophon tells us that Cyrus had catapults (arrow-throwing machines) carried on camels, this is doubtful. Another historian, Ctesias, tells of wooden dummies being put on the walls of the city Sardis when it was besieged by Cyrus. But there seems to have been no general practice of digging mines or of regular attacks in these old times. In fact, much of this early history is "a mass of fables." The story of the prophet



Horatius Cocles Defends the Bridge

### THE SIEGE OF BABYLON

Daniel, and of the writing on the wall, is familiar to us all; and there is little doubt that it was this taking of Babylon that followed "Belshazzar's Feast."

To about the same time belong the taking of Rome by Porsenna (508 B.C.), when Horatius kept the bridge, though (it is now believed) the Romans could not keep the city. We read of a siege of Barca, a year later, where Herodotus tells how a copper-worker detected the enemy's attempts to dig under the walls by using a metal shield as a sounding-board. Putting his ear to the shield, laid flat on the ground, he could hear the miners beneath, and thus the mines were discovered. This seems to show mining was not entirely unknown in these days.

About twenty years later Coriolanus, the Roman general, gained his name by the taking of Corioli, which he did by driving back a sally of the enemy, and following them so fiercely as to enter the gate with them, as Plutarch tells us. Thus a city was taken, but it is agreed by the authorities that there was little real skill in the art of besieging until after the "Peloponnesian War" in Greece, and this war really began with the trouble over the city of Platæa, which was taken by the Spartans

about one hundred years after Cyrus's exploit at Babylon.

Artillery, or machines for throwing arrows and stones, came into general use first in this war of the Grecian states, but later than this earliest siege.

# THE SIEGE OF PLATÆA, 429 B.C.

In the history of Greece there were two great leading parties. At the head of one stood the state of Sparta, while the other was led by the Athenians. The jealousy between these two powers led at last to the long contest known as the Peloponnesian War. In the state of Bœotia was the city of Platæa, the only one of its state that was friendly to the Athenians.

Secretly three hundred Thebans, allies of Sparta, gained admission to the city one night, and marching to its public square summoned the Platæans to give up their alliance with Athens and to join with them on the Spartan, or Lacedæmonian, side. When the Platæans discovered how small a body of Thebans were in the city, they captured more than half of the invaders and put them to death, in spite, the Thebans said, of a promise to spare their lives. This was the immediate cause of the outbreak of the war. A great army collected under Archidamus, the Spartan king, and entering Attica, ravaged it far and wide, burning towns,

destroying crops, and carrying off what they could not destroy. Meanwhile, the Athenians remained behind their walls in Athens, refusing to risk a battle. The Spartans did not attempt to assault Athens, the walls of which were high and strong.

This was the first campaign, and the second was carried on in the same way. But during the second campaign the Athenian forces captured Mitylene, killed over a thousand nobles, threw down the walls of the city, and sent colonists who were friendly to the Athenians to occupy its lands. Meanwhile, the Spartan forces, united with the Thebans, had attacked Platæa, laying waste in their march all the country round about. Then the forces encamped before the walls and sent heralds to summon the city to surrender.

The Platæans begged for time to consult the Athenian leaders, and a truce was granted. But soon word was received that the Athenians insisted that Platæa should remain true to the alliance, so there was no choice but to stand the siege. So cruelly was the war waged on both sides that the Platæans did not dare announce their decision to hold out except from the top of the walls; and as soon as surrender was refused, the besiegers began their work against the city.

#### THE SIEGE OF PLATÆA

They cut down all the trees for a wide space round about, and built a palisade on all sides of the city to keep the Platæans from escaping. Then they began to throw up an enormous mound to bring them on a level with the top of the walls. This mound was built of wood, stones, and earth, and its sides are said to have been protected by a sort of wooden lattice-work of interwoven trees and branches, to keep the sides from falling outward. Upon this work the men laboured night and day, in relays, and it was completed in seventy days—that is, it was built up to the walls and made the same height.

But one difficulty in raising a mound against a city lies in the fact that it gives warning to those inside of the exact point to be attacked, and the Platæans raised their wall by building up a structure of logs opposite the end of the mound and backing this wooden breastwork with bricks taken from the houses nearby. The front of it was, as usual, covered with rawhides, so that it might not be set on fire by thrown torches and flaming darts.

So far the advantage was on the side of the Platæans, since they had plenty of material within the walls to raise their breastwork as fast as the mound was built up, and they could annoy the be-

siegers from the walls by shooting down upon them, while less exposed to arrows than were the workmen outside.

Also, from behind their walls the Platæans dug an underground mine leading to the front of the mound, and as fast as the mound was raised they dug the ground away from beneath. The loose stuff of which the mound was built fell away rapidly into the opening below and so the secret mine was discovered. To prevent the ruin of the mound the engineers of the besiegers filled in the hole with wattles—that is, with branches woven together, which kept the earth solid. The Platæans, however, carried their mine still farther than the head of the mound, and continued to dig it away from below as it was built up above.

The next step by the besiegers was to set up their engines against the wall, and by bringing a heavy battering-ram to bear, they soon succeeded in breaking it through at one point, only to discover that the Platæans had prepared for this by building inside the breach a second wall, in half-moon shape—what has since been called a "demilune" or half-moon—so that after the wall was broken through it was impossible for foes to enter the town without undergoing a terrific fire of stones and arrows and

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a rain of all sorts of missiles from the new inner wall, while forcing that also.

Other rams were set to work at different parts of the wall, but some were caught in nooses and pulled aside, others broken by means of great timbers, which were slung by chains from each end and supported by poles thrust over the walls. By raising these great timbers and letting them fall again, some of the rams were broken. These devices were not new, but were known even to the ancient Egyptians and Assyrians.

By this time the besiegers had made up their minds that the city was not to be easily taken, and consequently decided that the place must be starved into submission. Since the siege had been expected by the Platæans, they had long ago prepared for it by filling the city with provisions, by sending away all except the fighting-men—four hundred Platæans and eighty Athenians—with a hundred and ten women to bake bread.

The Spartans decided to build something stronger than the palisades around the city, so that a smaller force might keep the Platæans in, and they built two long walls, protected inside and out by a ditch. This was to resist any sally by the Platæans and at the same time to prevent their

being rescued by an Athenian attack from without. Their two walls were sixteen feet apart, and at intervals were towers extending clear across from wall to wall. Here and there were huts to protect the soldiers.

These long walls were built of bricks, and when they were finished, the besiegers thought they could safely send away half of their force. But before giving up the attempt to take the city by storm, they made one last attempt. Bringing great fagots of dried branches, they tumbled these, one night, into the space between the mound and the wall, poured sulphur and pitch over them, and when all was ready, set fire to the great pile.

Undoubtedly this fire might have destroyed the wooden barriers which the Platæans had built, for it was far too fierce for them to extinguish. The historian Thucydides says that it was the greatest fire ever seen "save where forests are enkindled by the rubbing together of branches." But during that night came a great thunderstorm which extinguished the flames.

This attempt having failed, and the most of the force having marched away, there came a lull in the siege, while the besiegers waited for the provisions in the town to be exhausted. Too feeble to

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make an open attack, the Platæans became so reduced by famine that at last more than half of them decided upon attempting to escape secretly from the place, so as to leave more food for the rest. In order to climb over the besiegers' walls, it was necessary to make scaling-ladders, and the first question to be settled was how long these should be.

We get a good idea of the simplicity and lack of science of the soldiers of the time when we learn how they decided as to the height of the besiegers' walls. They sent to the battlements a great number of Platæans to count how many bricks there were from top to bottom. This they could do, Thucydides tells us, because the wall on the side toward the city "had not been thoroughly whitewashed." When the men had reported how many bricks they had counted, the leaders took the report of the majority and then worked out from this, by a simple sum in multiplication, the height of the wall.

The scaling-ladders being made of the right length, the two hundred and twenty-two Platæans who had decided to attempt an escape, waited for a dark and stormy night, when they knew that the sentinels on the besiegers' walls would retire to the towers for shelter. Then, keeping some distance

apart from one another so that their weapons might not clash, and having only the left foot shod to prevent slipping in the mire, the Platæans lowered themselves from their own wall, crossed the space between, erected their ladders, and climbed to the top of the besiegers' wall. The leading party of Platæans were armed with daggers and spears, and were followed by a number of archers.

Climbing quietly to the top of the wall in the rain and darkness, a number of them had gained the top when the usual awkward soldier knocked down a tile and its clatter aroused the enemy. An outcry was followed by the rush of armed guards from the towers to man the whole wall. But the Platæans, as soon as they had gained the top had seized the towers to right and to left of the place where they were crossing, and were able, by stationing a strong force of archers in each, to keep back, the besiegers.

As it had been arranged, so soon as the attempt had been discovered, the Platæans inside the town made a pretended assault against the walls of the besiegers, and in the darkness it was impossible to tell which attacks were real and which were feigned.

While the besiegers were thus in uncertainty, the escaping Platæans had all succeeded in reaching the

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top of the outer side of the Spartan wall, and those who had already crossed ranged themselves on the farther side of the outer ditch, from which they were able to direct their fire against the besiegers who tried to regain the captured wall. As the Spartans carried torches, and the Platæans were in darkness, the latter fought at a great advantage, and their archers slew many of the Lacedæmonians. When the three hundred reserve troops of the besiegers had found out where the real attempt to break out was being made, and had arrived to prevent the crossing, they found they had come too late and could only shoot into the darkness toward where they supposed the escaping Platæans to be marching.

It had been arranged among the besiegers that if an attempt to break out should be made, certain signals should be displayed by lighting torches; but the Platæans very cleverly lighted many torches of their own in different parts of the wall so as to confuse the signals that were meant to bring help to the Spartans.

As soon as a force could be got together, it pursued the escaping Platæans, but these having at first taken the road toward Thebes—that is, toward their *enemies*' country (rightly believing that this

was the last direction they would be expected to take)—were able to get a good start, and then to turn back toward the mountainous country, where all trace of them was lost.

Of the two hundred and twenty, all but eight escaped, a few having turned back while yet between the walls, and one unfortunate archer having been captured just at the outer ditch.

In the morning, the Platæans, who had been told by the few who returned that the attempt had been an utter failure and all were captured, begged for a truce "to bury the bodies of their friends"—a request that must have angered the besiegers, and that led to the discovery of their friends' successful escape.

As for those left within the city, they were soon brought to terms. An assault against the city being tried was so weakly met as to prove a second might easily be successful. But, as a matter of politics, the assault was not made, for a very curious reason. The besiegers did not wish to take the city by storm when once they were sure of it. Looking forward to a time when peace should be made, they wished to be able to say that the Platæans had "surrendered" of their own free will. So they persuaded the Platæans to let them enter the city and to

#### THE SIEGE OF PLATÆA

submit the question of surrendering to certain men sent from Sparta. As it was impossible to refuse, the Platæans agreed to the terms.

Then followed a sort of mock trial, consisting really of long political speeches on both sides, which resulted in the putting to death of nearly all the garrison, and the selling into slavery of the unfortunate women who had been retained in the city to bake the soldiers' bread.

Within a year afterward the whole city was destroyed and the materials used to build a great caravansary and a temple to the goddess Hera, or Juno. The siege of Platæa thus ended with the escape of half its defenders and the death of the rest. As an example of the art of war, it at least shows a great advance in military devices over the aimless fighting about Troy, proving that the Greeks had gained during the centuries some notion of how cities might be taken. The struggle had lasted for two years, and is looked upon as the first really methodical siege.

Here were regular walls, towers, and battlements, to keep the besieged from escaping, and also a second line of the same defences to keep aid from reaching them. It was the first "circumvallation." Then, too, the besiegers used the mound and as-

saults; and there was mining to destroy siegeworks, with the building of towers within to meet towers outside, and the making of a second wall to defend a breach made in the first.

There was science shown on both sides.

## THE SECOND PERIOD

SIEGE OF TYRE, by Alexander
SIEGE OF SAGUNTUM, by Hannibal
SIEGE OF SYRACUSE, by Marcellus
SIEGE OF ALESIA, by Cæsar
SIEGE OF JERUSALEM, by Titus

[59]



## THE SECOND PERIOD

HETHER or not the heavy artillery that preceded gunpowder was invented in Syracuse, we may date the invention somewhere near the time of Dionysius the Tyrant, of that city, and with the contriving of this class of machines a complete change was brought about in the art of besieging strongholds. Probably the first idea of sending a heavier missile than the ordinary arrow or stone from a sling, was to build up a large crossbow much stronger than any man could pull by his unaided strength. When such a bow was set upon a frame and provided with a little windlass by which it could be drawn back, it became possible to shoot very long and very heavy bolts and arrows, and these would go much farther and more swiftly than one fired from the hand bow. The arrows were laid in a channeled trough.

The next step would be to adapt the same machine to the firing of stones instead of arrows—a very simple matter, as it required only the putting of a flat block at the middle of the bowstring,

so that when the bow was released the block would strike the stone and shoot it out of the trough. This heavy-artillery bow was the beginning of the complicated machines of the same kind that afterward were built to an enormous size and fired great beams or stones heavy enough to batter down a fortification. Of these an account will be given later.

The bow having been developed and magnified, some genius must have seen that it was possible to make a big sling upon the same principle—that is, to have a very large sling worked by machinery, instead of a small sling used by hand. The machine for throwing stones based upon this idea consisted of a heavy and long beam of wood carrying the sling at one end, the long end, and being heavily weighted at the other. This beam being set up upon a pivot, when drawn back down to the ground would raise the heavy weighted end. Then a stone having been put in the sling while the lighter end was fastened down, the beam was suddenly released, the heavy weight descended, carrying the long end through a wide arc, and throwing the stone out of the sling to an enormous distance. These, too, were improved greatly at a later date.

This ancient artillery was made to throw light

#### THE SECOND PERIOD

stones of ten pounds or less, darts, or great boulders as much as three hundred pounds in weight. Of course they were frequently used to attack one another—that is to say, when an enemy's catapult became troublesome it would often be destroyed by bringing a number to bear upon it and shooting it to pieces, if possible. One very unpleasant use made of these throwing machines was that of hurling into a city dead bodies, or compounds that were poisonous or ill-smelling, so as to cause disease. There were countless forms of this ancient artillery, and the names given to the various devices are most confusing, since the old authors were not always careful to use the same names for the same sorts.

It must be remembered that from several centuries before Christ down to the seventeenth century, these predecessors of cannon were in constant use, and that clever men were ever engaged in improving them and making them more effective. Their effect upon sieges was to bring about the building of much stronger and loftier walls, but at the same time it was not at all impossible for a builder who had plenty of time and money to make a wall strong enough to resist them.

As these machines could easily be made of immense size and would throw to great distances stones of a weight great enough to batter down all but the heaviest fortifications, no longer were soldiers' shields or light breastworks built of wood able to resist such heavy missiles. Consequently attacks upon fortified places had either to be carried on from a greater distance, or when the besiegers approached they had to protect themselves by heavy banks of earth or strongly framed breastworks of logs that would resist the missiles from the heavy artillery. Heavy towers, or breastworks, were covered with earth or great mattresses to break the force of blows, and also provided with an outer covering of rawhides, which would not take fire; for it was as easy to throw great masses of burning stuff as to throw heavy rocks or beams of wood.

Since these engines of war could be constructed wherever timber could be found or could be taken apart and transported on waggons, light fortifications would no longer resist an army provided with such weapons. So city walls had to be made both higher and stronger, and light outworks were of little use except for a short time, since they could soon be battered to pieces by the enemy's artillery.

It resulted from the use of these engines of war that sieges became more scientific and better prepared, but were seldom attempted except by a

#### THE SECOND PERIOD

strong force well supplied with artillery and engineers.

Alexander the Great, of Macedonia, is said to have had portable catapults—that is, he carried the metal parts, and fitted them with the necessary beams and cords. The machines of this sort were thought to be of Syrian or Phœnician invention, and in the next siege we shall see Alexander using them against the city of Tyre, the richest and oldest of Phœnician ports.

# SIEGE OF TYRE, 327 B.C.

ander's taking the city of Tyre by admitting that, from the modern point of view, there is little or no excuse for the exploits of the Macedonian conqueror. Even his admirers admit he had no other purpose than to extend his power as widely as possible, though he seems to have made the excuse that he wished to extend Greek civilisation. Having made himself master of Macedonia and the neighbouring regions, having discovered the power of his soldiery to overcome less trained armies, Alexander simply extended his conquests farther and farther as he learned others' weakness and his own strength.

As a boy, Alexander complained that his father would leave him nothing great to do. Taught by his mother to think himself a descendant of Achilles, coming to the throne at a time when his kingdom was full of revolt, Alexander was trained to warfare from the beginning, and had placed in his hands, by the death of his father, the best organised army

#### SIEGE OF TYRE

then in the world. He was but twenty years old when he took the throne, and at twenty-two had already won great victories against barbarians and Greeks. He was no older when, at the head of thirty-five thousand men, he invaded Asia, defeating at the Granicus River a great Persian army, that left all Asia Minor in his hands. The next year he defeated six hundred thousand Persians, the army of King Darius.

It was at this time that he turned southward to attack Phœnicia, for the Phœnicians were the great naval power of the world, and Alexander did not dare march into Asia leaving behind him Phœnician fleets that might aid his enemies at home or cut off his own retreat. Of the Phœnician cities the greatest and richest was Tyre—the mother city of Carthage, which began as one of its colonies. The grandeur, the pride, and the power of this city can be best understood by reading in the Bible the twenty-seventh chapter of Ezekiel, where the prophet most poetically sets forth the city's magnificence in predicting its fall.

There had been really two cities of Tyre, the old and the new; one upon the mainland, the other upon a small island some two miles long, across a strait half a mile in width. The old city had resisted the

attack of Nebuchadnezzar for thirty years, but had finally been destroyed. New Tyre, the island city, was surrounded on all sides by lofty walls built of squared stones set firmly in gypsum, magnificent fortifications of masonry with lofty towers. To the north and south of the island were two harbors, one looking toward its sister city, Sidon, the other toward its daughter city, Carthage. In these harbors, upon the approach of Alexander, the Phænician fleet was sheltered—a fleet of galleys with masts and sails, but also rowed by from three to five banks of oars.

Alexander had with him no fleet when he first approached the city, and was compelled to make an attack by land. The old city of Tyre had been abandoned, and the Tyrians had sent their women and children and their old men for the most part for shelter in Carthage, so that the new town was strongly garrisoned by some thirty thousand effective men, was amply provisioned, and its people did not for a moment believe that Alexander could take the place. When his heralds arrived to demand Tyre's surrender, they were carried to the lofty walls that faced the shore and thrown into the sea, in wanton insult to the Macedonian army.

The first step in the siege was to construct a

great mole, or causeway, so that Alexander could bring his army from the shore to the island. This, of course, was begun out of range of the engines from the walls. To construct the mole, Alexander used the materials of the abandoned city—first driving piles of cedar from the forests of Lebanon deep into the bottom of the strait, and building up the work with wood, stone, and earth, with which, to give firmness, he had mingled rushes. Much of the hardest work was done by the inhabitants of the country round about, whom Alexander's soldiers gathered together and forced to labor at its construction. At the task of building the mole, Alexander's men worked day and night, while their general encouraged the best workers by large presents, and, as was his custom, oversaw every detail in person. Along the edges of this mole the waves of the Mediterranean dashed, and to keep it from being washed away, the Macedonians felled great trees, with which they made a barrier along its whole length as a breakwater.

So soon as the growing causeway approached within range of the walls of Tyre, the Tyrian engineers set up great machines for throwing darts and stones, and posted their skilful archers and spearmen thickly along the battlements, so that the

soldiers found their work more and more perilous the further it proceeded. They were protected by great shields and by "mantelets," or rolling breastworks made of logs framed together; but every now and then some workman would expose himself and be picked off by the Tyrian marksmen. To meet these attacks, Alexander was forced to erect two great wooden towers at the outward end of the mole, and to station upon them his own engineers and archers, to oppose the fire of the besieged by shooting those who fired from the walls.

Meanwhile the Tyrian fleets came boldly out from the harbors, knowing that there was no navy to oppose them, and, advancing toward the sides of the mole, poured a heavy fire upon Alexander's soldiers and workmen. When the towers were finished, a battle waged fiercely between Macedonians and Tyrians for days, the mole meanwhile growing slowly. The front of the towers had to be protected by rawhides, for from their walls the Tyrian engines flung cauldrons of burning pitch and masses of flaming tow.

When they saw that the towers could not thus be destroyed, the Tyrians prepared in one of their harbours a great flatboat such as they used in transporting animals. This had two masts upon it, from the

yards of which they hung caldrons filled with pitch or bitumen, and perhaps sulphur and other combustibles. The whole boat was then loaded with dried wood well soaked with oil and bitumen, and when all was ready, two of the triremes, or ships of war, one on each side, towed the flaming ship out of the harbour. Bringing it close to the towers at the head of the mole, they set it adrift in such a way that the winds and waves carried it against the causeway. The back of the fireboat had been so loaded that the prow was raised high in the air, and it ran up on the side of the mole and stuck fast. A few brave Tyrian sailors now set fire to the great mass of wood and sprang into the sea, to swim back to their friends.

Alexander and his soldiers rushed to extinguish the flames, but at the same moment the Tyrians gathered upon the walls, sending volleys of missiles against them, and, despite the Macedonians' efforts, the great towers caught fire, and after a single hour most of the mole was destroyed.

Thus failed Alexander's first attempt; and we can imagine the rejoicing of the Tyrians as they yelled with triumph, gazing over the smoking ruins from their lofty walls. They had taken some few Macedonians prisoners, and these they tortured and

put to death in full sight of their companions, tossing the bodies into the sea. This desecration of the bodies was to the Macedonians the greatest of all insults, since to them, as to the Greeks, the burial of the dead was a matter of supreme importance.

By his failure and the insults of the Tyrians, Alexander was driven to mightier efforts. Leaving his able engineers and clever workmen to build a broader, bigger mole, Alexander departed for Sidon to get together a fleet and to summon more soldiers to his assistance. While the work upon the mole proceeded, Alexander collected at first eighty, and finally a fleet of over two hundred vessels, and he was also joined by four thousand Greeks under Cleander. In command of this great force, Alexander returned to the siege. Having captured a few of the Tyrian vessels that had ventured too far from the harbours, he drove all the rest of his enemy's ships from the seas. They were drawn up in the harbour, with their prows toward the entrance, and across the entrance to the harbour the Tyrians stretched a great chain. Then Alexander's fleet was moored along the shore on both sides of his mole, ready to attack if the enemy's naval force came out.

#### SIEGE OF TYRE

Having thus guarded against interference by the Tyrians, Alexander's men built many great catapults. These they placed upon flatboats and upon slower vessels of his fleet, and upon the mole itself. Other vessels were provided with lofty towers, or with battering-rams, and two of them carried great bridges hinged to the decks and drawn up against their masts ready to be dropped upon the Tyrian walls when a breach should be made in them.

In order to repulse the coming attack, the Tyrians erected many wooden towers on top of their stone walls, and from these discharged great volleys of arrows and flaming firepots against any of the Macedonian vessels that approached. As the Tyrian walls were a hundred and fifty feet high, little could be done until they were broken through at some point, and when Alexander's fleet advanced to the attack and drove their rams against the walls, and lowered men with crowbars and hammers to break the foundations, it was discovered that the base of the great wall was protected by an enormous mass of loose boulders against which the rams had no effect, and which could not be removed except a few at a time under the fire of the enemy. But the greater the difficulty, the more fiercely the

Macedonians conducted the attack. Alexander's engineers prepared great flatboats and had them guarded by triremes, which are said to have been mail-clad—that is, protected either by metal or by leather and ropes against the fire from the walls. These boats were tied to the mole, and from their decks divers were sent to attach nooses to the loose stones, so they could be hauled up and deposited in the flatboats, by which they were carried out to sea.

From the Tyrian walls were thrust long poles with hooked knives to cut the ropes that fastened the flatboats. Then Alexander sent some of his vessels to guard these ropes, but still the ropes were severed by Tyrian divers, who, probably by hidden ways, swam out from beneath the walls with knives in their hands. At length Alexander was forced to moor his boats with chains, and then gradually succeeded in removing the loose stones from the base of a part of the wall.

One of the causes that made the Tyrians hold out so bravely was the hope that they would get help from Carthage, which owed them everything for past favours. But both Carthaginians and Tyrians were Semites, keen in trading, shrewd in commerce, but lacking in generosity, though brave and skil-

#### SIEGE OF TYRE

ful when driven into a corner. There was in the race little sympathy with their fellows, and throughout Tyre's great extremity, the Carthaginians remained idle spectators of its ruin.

The next attempt of the Tyrians to interfere with the siege consisted of a naval attack. Across the narrow mouth of the harbour they stretched many sails, as if to dry them, thus hiding their fleet from the Macedonians. Behind this screen thirteen of their strongest vessels were loaded with soldiers, and one day, at noon, suddenly withdrawing the screen of sails, these dashed out of the harbour, driven at full speed by their rowers, and attacked Alexander's vessels that were drawn up to protect the side of the mole.

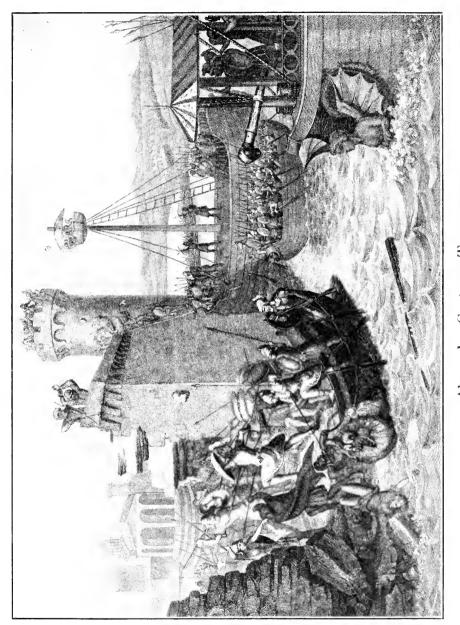
It is said that Alexander was doing the classic equivalent for enjoying his lunch, or else was passing the hot time of the day in Oriental fashion by taking a nap. At all events, things went badly for the Macedonian fleet, which lost many men and was in a fair way to be captured. Learning of this sudden outbreak, Alexander showed, as one of the writers says, the qualities of an admiral in repelling it. Hastily preparing for action a number of his own vessels, he dashed at full speed around the whole island on which Tyre stood. Though he was

in full view of the Tyrians on the walls, so busy were the vessels in plying their attack, that they had no warning of the coming vengeance until the rescuing Macedonian fleet appeared, to cut them off from the mouth of their harbour, attacking them in the rear. Out of the thirteen Tyrian vessels two were captured and a number of others severely damaged, making their escape with the greatest difficulty.

Alexander had no desire to be interrupted again during the lunch hour by similar naval impertinence, so he stationed enough of his own vessels before the mouths of the Tyrian harbours to make certain that their vessels would no longer interfere with the besiegers' work.

By this time the mole had come close enough to the wall so that the battering-rams could be swung to and fro to deliver their shattering blows; but against the solidly cemented ramparts of Tyre, the rams proved nearly useless. Now that he had a fleet while the Tyrian fleet was bottled up, Alexander was able to attack the wall even at other parts than those reached by his mole, and, sending his warvessels close up to the city, he tested the strength of its walls upon all sides.

It is said that there is always a weakest link in a



Alexander Captures Tyre



#### SIEGE OF TYRE

chain. At Tyre this was found on the seaward side of the fortification. Taking it for granted that they would always be able to rely upon their fleet, the walls were either thinner or weaker toward the sea. Here the armies succeeded in cracking, dislodging, and removing stones until a breach in the wall was made. Two vessels had been held ready to lower bridges into the opening as soon as made, and now these were rowed or pushed forward, the bridges were dropped, and the heavily armed Macedonian soldiers advanced with lance and sword behind their shields to clear the way for the besiegers. But the Tyrians had gathered in such numbers behind the breached wall and poured upon the attacking party so fierce a volley of stones, arrows, burning pitch, and balls of flaming tow, that Alexander's men were driven back, while behind the breach the Tyrians built a second wall, curved into a half-moon, that for the time closed the gap.

Then came an interval of three days during which both sides were making ready for the grand assault. Alexander brought together all his battering-rams opposite the weakened wall, sent both his fleets to break the chains at the mouth of the Tyrian harbours, and at an appointed time the whole Macedonian force was let loose at once upon the

city. All the engines at once began flinging heavy stones and great timbers against the walls, while the Macedonian fleets rammed and broke the chains, entered the harbours, and attacked the Tyrian vessels. The old breach was widened, the bridges once more lowered from the floating boats, and Alexander's chosen men in close array fought their way to the walls and gained their top. Then, separating into two parties, they marched along the top of the walls, taking in turn each tower as they came to it. The attacking fleet also succeeded in reaching the walls of the harbour side, put up great ladders by which the soldiers climbed to the top of the walls, and in a short time the Tyrians were driven back from their defences, retreated to the centre of the city, and made their last stand around one of their temples.

According to the old fashion, Alexander led his men in person, and after taking the citadel and reforming his guards, attacked the Tyrians in their streets. They were no match for the Macedonians in hand-to-hand fighting, and the Macedonians were wild with rage to avenge the torture and killing of the captives. In a short time eight thousand Tyrians were put to death, and two thousand were nailed upon crosses.

### SIEGE OF TYRE

To show how unequal was the fighting in the streets, we may note the statement that only twenty of the shield-bearing Macedonians were slain. The whole loss of Alexander in taking the place was about four hundred killed and three or four thousand wounded, a greater loss than Grant suffered in taking Vicksburg.

Before taking the city, Alexander had had a dream that Hercules had stretched his hand out over the walls to welcome him to the city. Perhaps for this reason he pardoned all those who had taken refuge in the temple of Hercules, while slaying or selling into captivity all the rest, some thirty thousand. To celebrate his triumph, Alexander sacrificed to Hercules before his temple, making a sacred offering of the great engine that had first breached the wall, and then held a grand naval review and parade of his forces, celebrating games and sports before the temple.

So, after seven months, fell this city, believed to be unconquerable. The site of the island city to-day is occupied by a small and unimportant town, with a few thousand inhabitants. But the great mole, to build which "exhausted a city and a forest," still exists, and has caused a change in the tides about the city that has made the harbours fill up, thus

destroying not only the city itself, but those very advantages that made its site valuable.

Gossiping Plutarch tells us that the boy Alexander was wasteful in throwing incense upon the sacrificial fires, and that his tutor rebuked him, telling him to wait until he had conquered the lands where incense was made before being so lavish. After Tyre was taken, Alexander found among the spoils great stores of frankincense, and sent a great quantity of it to his tutor with the message, "This will teach you never to be niggardly with the gods!"

It is important to remember that Alexander was helped in his warfare by the cleverness of the Greek engineers, and that they had learned from the earlier nations the secrets of siegecraft. Alexander's exploits were so celebrated that they were known throughout the civilised world, and no doubt the story of his sieges and the means used by him for taking cities were entirely familiar to the Carthaginians and also to their great rivals, the Romans. Thus, probably, the art of warfare was handed down from nation to nation until it came to Rome.

The next siege, that of Saguntum, was what [80]

## SIEGE OF TYRE

brought about the great Punic wars and led to the ruin of Rome's great rival on the south, across the Mediterranean. It is an interesting siege, also, because Saguntum was founded upon a rock, and could be attacked from only one side.

# THE SIEGE OF SAGUNTUM, 219 B.C.

Some of those who have written about great generals in the past have put the Carthaginian general, Hannibal, among the three greatest, the other two being Cæsar and Napoleon. But such an estimate is based upon their general character as great men. Considered simply as soldiers, Frederick the Great of Prussia and Gustavus Adolphus of Sweden are certainly the equals of any who ever lived, Frederick being often put at the head of the list. Hannibal, however, exceeds all the rest (according to these same writers) in his unselfish and patriotic character. He fought for the good of his country, and never put his own interests against those of his nation.

It happens, owing to the sort of wars that he fought, that Hannibal did not conduct any very great siege. This was because he was fighting with a not very large army against a great number of foes and in the enemy's country. He did not have time or sufficient force to settle down before a stronghold and to take it by siege. He was, there-

#### THE SIEGE OF SAGUNTUM

fore, much less skilled in this form of warfare than either Alexander or Cæsar. The only siege of importance that he carried on was against the fortified city, Saguntum, upon the eastern coast of Spain.

The city at the time was only one mile inland, though now the coast has so extended that its site is three miles from the sea. It was situated upon an enormous rock, the sides of which were cliffs three hundred or four hundred feet high, except on the westward, where the slope was more gentle. To provide against attack at this, its weakest point, great walls had been built there and a very strong and high tower. Although in those days the usual plan for attacking such strongholds was to build such a great mound of earth as that Alexander used in reaching the walls of Tyre, this could not be done against Saguntum, since the rock was too high and the mound could not be brought as high as the walls.

Hannibal was therefore compelled to cut down hundreds of trees and to build the long galleries of strong walls that were called "vineæ." These, covered on the top with hides or earth, were like overground tunnels, and through them his soldiers could safely advance against the westward side near to the walls. Out of wood also Hannibal's engineers built great towers and battering-rams covered with roofs. The towers were placed upon rollers and gradually moved forward until they came so near to the walls that the archers and slingers could attack the defenders from above. This kept the soldiers of Saguntum from rushing out to capture or to set on fire the rams, which are said to have been of enormous size. The Saguntines at first drove the Carthaginians from the rams by their volleys, but as soon as the men were protected and the rams could beat against the walls, these soon began to yield. Hannibal succeeded at last in throwing down part of the wall and three of its smaller towers.

The Saguntines had plenty of stores, were excellent fighters and, being the last town in Spain to resist Hannibal, they hoped that if they could hold out a reasonable time help would come to them from the Romans.

Hannibal had a hundred and fifty thousand men, and was well provided with siege machines, but he wished to take the city as soon as possible; and so, upon the making of the first breach in the walls, he ordered a charge without waiting to widen the breach and gain a broader front of attack. His

#### THE SIEGE OF SAGUNTUM

men, consequently, fought at a disadvantage and were again and again driven back with great loss. Their great numbers were of no advantage, since they could advance only in a narrow column. The Saguntines, encouraged by their success, constantly rushed out to attack the siege-works, and at one time succeeded in wounding Hannibal in the thigh, so disabling him that he had to give up the active direction of the attack. Once before this, Hannibal had narrowly escaped being crushed under an enormous stone thrown from the wall.

In these attacks the Saguntines made great use of blazing darts, called "falerica." Probably these were first made to set fire to the siege-works, but they proved most effective also when used against Hannibal's soldiers. For five days these assaults were repeated at intervals, but the Carthaginians could not force their way into the city. In spite of his hurry, Hannibal was compelled to see that the city could not be taken with a rush. He left the main works in the hands of his engineers, who first built a long breastwork protected by towers across the western front of the city, behind which the Carthaginians were safe from attack.

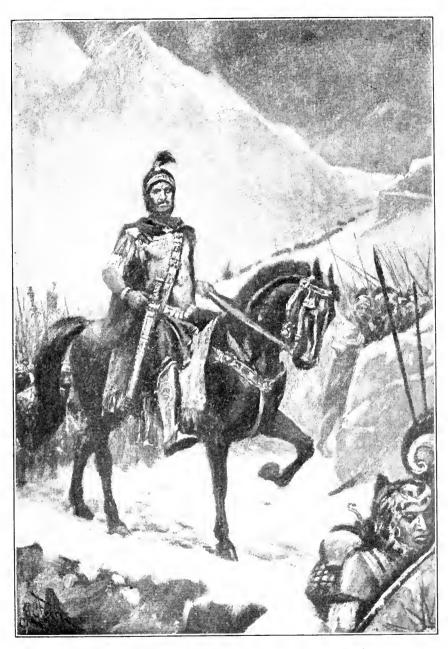
Then, at their leisure, the engineers constructed enormously high towers of many stories, upon each

of which were strong bodies of archers, slingers, and engineers with their artillery.

When this lofty tower had been brought within bow-shot of the wall of Saguntum, so heavy a fire was poured down upon the defenders that they could not remain upon the upper part of the wall, but were forced to leave it undefended. This left the pioneers free to advance close to the foot of the wall, which was built of stones laid, not in mortar, but in clay. With picks and levers the base of the wall was soon weakened and the wall thrown down.

But, meanwhile, the Saguntines had had time to build a half-moon wall inside to protect the breach. This, however, was a weaker wall than the first, and being commanded by the tower, could not easily be strengthened. Another breach was soon opened in another part of the wall, and having a strong force, the Carthaginians were able to prevent these breaches being closed. After several such breaches had been made, a strong force of Carthaginians being sent at once to attack each, could not be repulsed, and the Saguntines were forced to flee from the wall and to take refuge in their strong citadel, or great tower.

By the time Hannibal returned in person to the



Hannibal Crosses the Alps to Enter Italy

## THE SIEGE OF SAGUNTUM

attack, the defence seemed so hopeless that he offered the citizens fair terms if they would surrender. But refusing to give up, the Saguntines gathered all the wealth of their city into one great pile, set fire to it, and slew themselves. When, at length, the great tower of the citadel was in turn undermined and fell the Carthaginian army entered only to find the place a mass of ruins. This siege lasted for eight months, and despite the attempt to destroy the city's wealth, there was enough booty found in the city and sent to Carthage to make the avaricious Carthaginians eager to see the war carried by Hannibal into Italy.

Five years later occurred the remarkable siege of Syracuse by the Romans under Marcellus. This is mainly remarkable for the wonderful feats in engineering that are told of as the work of the great Archimedes, a native of that city. But unfortunately we do not know exactly the nature of the machines used by the philosopher. He was more interested in pure reasoning than in the clever things he made, and so we have no means of knowing more than history tells us—that he destroyed and drove away the Roman ships.

Suppose it was by means of explosives that

Archimedes set them afire or raised them in the air—would not the story read much as it does now?

At all events, the siege may be briefly told, though we cannot make clear all its happenings.

# SIEGE OF SYRACUSE, 214 B.C.

In Plutarch's life of Marcellus we read of the great siege of the city of Syracuse in the year 214 B.C. This was a fight of a navy against a strongly fortified seaport with lofty walls, assisted at the same time by a land attack. Marcellus had sixty great galleys, and plenty of the artillery of the time for throwing arrows and stones. He chained eight galleys together to support one huge engine, trusting that its heavy fire would destroy the wall.

Archimedes, the great philosopher, a kinsman of King Hiero of Syracuse, was begged to lend his aid against the Romans, and used his skill to help the Syracusans in making and handling their artillery. He is said to have shot great timbers into the Roman ships, and so sunk them; to have caught some of them by their prows with great hooks and raised the bows till they went down stern foremost; to have hoisted others into the air, whirled them about, and dropped them on the rocks, and so forth.

As for the great engine on eight galleys, it was

first struck with a mighty stone weighing more than a thousand pounds; then a second, and a third—and it went to pieces. Marcellus gave up the attack.

Next he tried to dash close to the walls, thinking Archimedes's machines only good at a distance. But the old philosopher had made others for short range, and the Romans were again quickly repulsed by showers of stones, volleys of arrows, and so many missiles that they lost not only men but ships.

Marcellus, seeing that the brain of Archimedes had inspired all the Syracusans, tried to shame the Romans to the attack, but they were in a panic, and shied at seeing a rope or bit of timber on the walls. He had, therefore, to give up any idea of assaulting, and rely upon a blockade. Marcellus took a prisoner whom the Syracusans were eager to ransom, and while consulting with them about this, Marcellus noted that a certain tower was ill guarded. Providing scaling-ladders of the right length, an attack was made while the citizens were keeping a feast to Diana. The Romans gained the wall, and then by boldness and noise put the Syracusans into a panic, and so came into possession of the city.

Archimedes, it is said, was ordered to come before Marcellus, and being in a brown study, told the

#### SIEGE OF SYRACUSE

Roman soldier to wait till he finished a geometry problem; whereupon the soldier, not being interested in mathematics, drew his sword and bisected the philosopher.

The burning of the Roman fleet by mirrors or lenses is not told of in several of the best authorities, but experiments have been made to show that curved mirrors might have sent the sun's rays in a concentrated beam, and so have set fire to light wood not too distant.

The long struggle between Rome and Carthage saw a number of greater and lesser battles against cities, but there can be little said of these since they do not give us new light on methods of warfare.

Were it not for the fact that it is also desired to choose in this book sieges not too near one another in time, the siege of Carthage by Scipio in 147 B.C. should be told. But it was not a contest in which the conditions were at all equal. The Carthaginians had been deprived of everything with which they could make war. Their ships were burned, their military engines carried away or broken up, even their very weapons demanded by the Romans. Yet when the Roman conquerors demanded the destruction of the city, the Carthaginians refused, in utter despair of any mercy, and worked in a frenzy to defend

themselves, the Carthaginian women even giving their long hair to be twisted into bowstrings. That the city should fall was inevitable, but the defence, though most heroic, was rather that of a great horde of citizens fighting desperately against overwhelming odds, than a fair struggle between armies. Altogether, it is rather a story of cruelty and horror than of scientific warfare.

Of a very different type is the campaign of Cæsar in Gaul. Although the Gauls had not so much science in war as the Romans, yet they were a brave and heroic people, they had an enormous advantage in numbers, and it required Rome's greatest captain and her best engineers to take their palisaded cities.

Cæsar took several Gallic cities by sieges, as most schoolboys are forced to know in reading his Commentaries. The most noted of these sieges were those of Avaricum, a city amid marshes, and Alesia. Avaricum was taken by a great mound and enormous towers. The Gauls here fought Cæsar in towers like his own; they undermined his mound; they caught in nooses the hooks with which the Romans tried to tear down their ramparts; they scorned death, as is shown by the incident of four or more Gauls being shot in succession as they stood

#### SIEGE OF SYRACUSE

in a breach throwing fire against the Roman works. Cæsar tells this incident with admiration, and it shows the accuracy with which the Roman engineers plied the scorpio, or machine-bow. Finally Cæsar took the wall by assault and captured the town.

The siege of Alesia was carried on with even more science and against a far greater force, both within and without the city, and it is of this siege that we shall next tell.

# SIEGE OF ALESIA, 52 B.C.

Cæsar had made his first expedition into Britain (which, by the way, was a complete failure as a military enterprise), there was a great uprising of the Gauls under their leader, Vercingetorix. In this campaign the Gauls determined to adopt a new method of warfare. Hitherto they had tried to withstand the Roman soldiers at every point. Now, under the advice of their able leaders they resolved to give up the smaller places, which were difficult to defend, to select two or three of the largest towns, put all their forces within these strongholds, strengthen their fortifications as much as possible, and to hold them to the last against the Roman armies.

Three strong cities were chosen. The first, Avaricum (now Bourges) was taken without much difficulty; but the second, Gergovia, the capital of the Arverni, which was the name of the people over whom Vercingetorix ruled, made so good a re-

sistance that the Gauls were greatly encouraged, and many who had before submitted took up arms and joined Vercingetorix and his forces. Cæsar found that the entire nation was in arms against him. The final struggle between Romans and Gauls took place around the city, Alesia, which was situated upon a hill well surrounded with fortifications and garrisoned with more than a hundred thousand men. This hill was a steep slope on all sides, and in some places it was precipitous. On each side, at the bottom of the hill ran two rivers. The historian. Froude, tells us that the position was so strong that it could not be taken except by starving out the garrison. The modern town, which is built near the site of the ancient town, is known as Alise St. Reine. Against this position Cæsar, having joined with his lieutenant, Labienus, led his whole force, expecting to blockade the Gauls within the town, to cut off all supplies, to starve them into surrender, and then having captured the leader of the insurrection together with his whole army, to put an end to the rebellion.

Cæsar himself in his history of the campaign declares that the only way of taking the town was by a blockade. All about the place were hills divided from the town site by the valley rivers. Not only was the fortified place full of Gauls, but a large force was encamped on a plain three miles long, to the eastward of the city at the foot of the hills. These men had thrown up an intrenchment and dug a ditch to serve as a first defence against the Romans.

Having arrived before the city, Cæsar began the siege by throwing up intrenchments, intending to surround Alesia upon all sides, and here and there behind this wall he built a number of camps in the Roman fashion, each one really a little fortress. Also to strengthen the line, the Romans built twenty-three towers, each one holding a strong garrison and guarded by vigilant sentinels.

We must not think of these fortresses and walls as being built of masonry. They were constructed of logs of wood, or, rather, trunks of trees, pinned firmly together by great stakes and banked up by piles of earth. Towers and strongholds were built in the same fashion as log houses, except that the walls were usually doubled and filled in with earth and stones, rammed tightly so as to strengthen the wooden walls. Against even the small cannon of the Middle Ages these defences would have been useless. But when neither army possessed any artillery that could do more than throw large stones, these

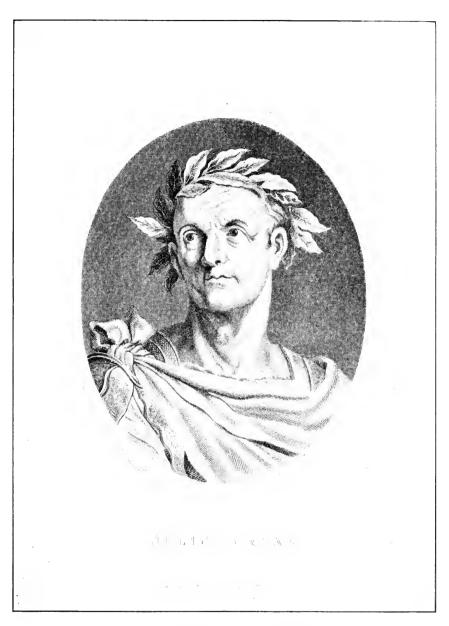
walls were really stronger against the enemy than stone walls were against cannon.

To protect the soldiers who mounted these walls, stakes were driven at intervals along the top, and branches woven in and out so as to make a thick wickerwork or very coarse basketwork strong enough to stop an arrow, a dart, or the stones flung by the slingers. In order to repulse attacks, piles of stones and bits of timber, trunks of trees, earthenware vessels of water kept hot over fires, were made ready along the ramparts to be thrown upon the attacking columns. There was little or no difference between the permanent walls of a city, with their watch-towers at intervals, and the walls built by the Romans outside, except, perhaps, that these were of smaller size.

Having finished the main part of these siegeworks, the fight between Gauls and Romans began by a cavalry battle between the walls. After a doubtful struggle, the Gauls were put to flight, and many of them were slain while trying to make their way through the narrow gates of the camp. Here the horsemen became confused, interfering with one another, and the Germans, who were fighting in alliance with Cæsar's men, were able to slay many of them, driving them finally within their camp with

great loss. Many of the Gauls, when they saw it was impossible to get through the gates, slipped from their horses, flung themselves into the ditch that surrounded the camp, made their way across it, and tried to climb up the outside of the breastwork. Here they were exposed to the darts and arrows and stones flung by the besiegers, and many of them perished. So great was the confusion that finally the leader of the Gauls, Vercingetorix, had to order the great wooden gates to be closed, partly to keep the victorious besiegers out, and partly to force at least some of the Gauls to defend themselves in the plain outside the city.

During the night that followed this first attack, the Gauls held a council of war, and decided that the only hope of saving themselves was to bring about the arrival of an army of Gauls from outside. Orders were given, therefore, that all the horsemen should depart from the city secretly, make their way through the unfinished works of the Romans, and then riding, each man to his own tribe, to call upon every man in Gaul capable of bearing arms to advance to the relief of the besieged city. The message was that the liberty of all Gaul depended upon saving the force shut up in Alesia. By this means he thought that he would be able to raise an army



The Conqueror of Gaul



of some eighty thousand men before his provisions were exhausted. He calculated that there was enough food to last a month, or even longer if he should put the garrison upon reduced rations.

When the horsemen had departed, Vercingetorix gave orders that every sort of food should be brought into one place under his own charge, and threatened death to any one who should disobey. Besides the corn, they had cattle and sheep in great numbers. That same night he decided it was best to withdraw all his forces inside the walls and to give all his efforts to keeping the Romans out of the city.

Of these plans Cæsar soon learned, from prisoners or from deserters, and foreseeing that, above all, he must prevent the Gauls from obtaining supplies, he set his soldiers to make a twenty foot ditch around the whole city and caused all the provisions of the Romans to be carried back well beyond the ditch, in order that the besieged Gauls might not be able by a sudden attack to seize any part of the Roman supplies. Having thus made his provisions safe, Cæsar, to provide a defence against the expected army of relief, constructed a second fortification around the first, so as to surround the whole city with two rings of fortification, one to

keep the besiegers from getting out, the other to protect the Romans against the rescuing army of Gauls.

At every eighty feet along this intrenchment he built great wooden towers strongly garrisoned. The intrenchments themselves were protected on the outside by two deep ditches, and in front of these ditches were great pits in which large trees were set with sharpened branches, and beyond these pits were others, shallower, in the middle of each being a sharpened stake. Cæsar describes in full his method of protecting the intrenchments which seems to show that this method of protecting defences was not well known to the Roman people. In brief, it consisted of a wall, two ditches, deep pits filled with trees having branches sharpened, smaller sloping pits containing sharpened stakes, and then a space over which were sharp iron spikes set into posts driven into the ground, among which cavalry could not gallop.

The whole object of fortifications of this kind, both ancient and modern, is to delay the attack of outsiders. If they can be prevented from making a dash up to the fortifications, and are forced to pick their way slowly, they are kept for a long time under the fire of the defending forces.

Traces of some of these defensive works made by Cæsar's soldiers have been found in modern times in Gaul, especially during the time of Napoleon III. This emperor was deeply interested in Cæsar's campaigns. He wrote a book about them, and set men to work upon the sites of some of his battles and sieges in order to find traces of the old Roman works. So we have not only Cæsar's descriptions, but even some of the remains of his fortifications to guide us in understanding them.

There would have been little use in these works of the Roman soldiers if they had not possessed something to take the place of modern artillery and firearms. In addition to their slingers and their bowmen, the Romans had the machines for throwing stones and arrows. These were of three kinds, two being the catapults and scorpions, which corresponded to our light artillery; these could be used not only upon fortifications, but even upon open ground. They were little else than great bows set upon a framework—a sort of giant bow-gun having a flat piece in which great bolts or arrows could be placed, and a sort of winch, or windlass, that would draw back the cord of the bow. These were not unlike the other third kind of machine that was used in sieges, but this—the ballista, or

thrower—was much larger and heavier and usually hurled great stones.

These artillery machines were in charge of a corps of men that went under the name "fabri," or workmen, and corresponded to modern artillerymen and engineers. For ordinary siege-works, such as were used in taking the first of the three strong towns fortified in this campaign, the Romans made use of a mound similar to that we have spoken of in previous sieges. This they called the "agger." It was built of wood, stones, and earth, to a height that would bring the besiegers on a level with the walls of the town they were attacking. To protect the workmen while building the agger, forms of moving breastworks were built of timbers, and even set upon rollers. Behind these the workmen were protected and gradually built up the agger until it reached the walls.

These moving breastworks were of all sizes, from one large enough to protect a few men to an enormous moving tower. Big shields were also used, and now and then breastworks of logs could be thrown up wherever they were needed. Where the walls of the city were low, and the city itself was not upon a high hill, these methods enabled the Romans to approach the walls, but in the siege of Alesia they

could not be used because of the hill upon which the city was built. Consequently, before this place the siege was really a blockade—an attempt to starve out the garrison rather than to destroy the walls and enter the city; and the fortification toward the open country was, as we have seen, merely to keep the Gauls from making an assault against Cæsar's embankments by keeping him for a long time at a distance and under the fire of his artillery.

The only part of the city from which there was danger that Vercingetorix could make a sudden rush with a large force was that long plain westward of the city where the cavalry fight had taken place. Across this Cæsar set the Romans to digging a ditch, twenty feet wide, with perpendicular sides. While this would not keep the Gauls back long, it would prevent their troops from rushing upon the Romans during the building of the main defences outside of it, since these began nearly a quarter of a mile back of the ditch.

Having completed two lines of fortification fully ten miles in circuit, protected by ditches and stakes and trees, as already described, Cæsar awaited attacks either from the Gauls within the city or from the great army summoned to their help. The Gauls were doing their best to go to the help of their great leader. Although they did not send all the fightingmen of the country, they called upon each of the tribes to send so large a number that when the relieving army set out upon its march for Alesia it numbered two hundred and thirty-eight thousand strong, of whom eight thousand were horsemen.

While this vast host was being gathered, Cæsar's men had been riding about the country gathering up everything that was eatable so as to support themselves in case they should be forced to sustain a long siege, and the Gauls within the city had been as saving as possible to make their food last until the relieving army should appear.

Councils of the chiefs were held and every desperate proposal considered. They even expelled from the town all who were unable to fight—old men, women, and children. These came in pitiful throngs to the Roman fortifications, begging to be taken as slaves, prisoners—anything, if only they could get food. But Cæsar posted guards along the lines and left the miserable creatures to starve between the Roman and the Gallic walls. These poor wretches were the townsfolk into whose homes the Gallic soldiers had come.

But soon after the driving out of these townsfolk, the outlooks upon the Roman and the Gallic ram-

parts suddenly saw a body of Gallic horsemen upon a great hill to the westward of the Roman lines, and as these came into view and arrayed themselves on the height, they were seen to be followed by a numberless multitude of foot soldiers. These tall, fair-haired warriors wore armour brilliantly coloured, tartans, plumes, rich cloaks, besides gold ornaments upon their necks; and they were armed with spears, lances, bows, and long swords.

At once the Gauls within the town burst into cheers and demanded to be led against the Romans. Vercingetorix had made all ready for the sally, and his troops carried great bundles of wood, baskets of earth for filling up the trenches, and pushed forward breastworks mounted upon rollers, to protect them in the attack.

Meanwhile the Romans arrayed themselves along their lines of fortifications, both inner and outer, while the Roman cavalry, many of whom were Germans fighting as Cæsar's allies, rode forward to meet the Gallic horsemen. The battle of the cavalry lasted during a whole afternoon, but just at sunset the German cavalry, drawn up in a solid body, put the Gallic cavalry to rout and then falling upon the archers who were drawn up behind them, cut them down with their swords.

It must be remembered that this battle was fought in a great plain in full view of both Gauls and Romans, and that had the Roman force been defeated, an attack from the town would have been made upon their fortifications. But with the flight of the Gallic cavalry the besieged lost hope and retired once more within their walls.

During the whole of the next day the Gauls were getting ready for a grand attack, and, suddenly, at midnight, was heard a terrifying shout as their enormous relieving army advanced down hill against the Roman ramparts.

Now was seen the value of Cæsar's preparations; for, though both sides suffered from the stones and arrows that were shot in vast numbers through the darkness (for there could be no light except from bonfires or from torches, here and there) yet the Gauls were unable to cross the ground that had been so well guarded with sharpened stakes, trees, and pits. Very few of them were able to make their way through these defences, and these few the Romans repulsed, sending bodies of men at times to one part or another of the wall as they were needed. Neither of the Roman walls was broken, and toward daylight the attack had failed.

Just north of Cæsar's position he had been com-

pelled to leave an opening in his line of fortifications. In this opening were posted two legions, about eight thousand men. Having learned of this weak point from the people of the country, the Gauls sent sixty thousand men around the hills to attack these less protected legions, while their cavalry pretended to make a strong attack on the Roman lines, and Vercingetorix led his men out also against the near fortifications of the Romans. A general attack followed. Armed with long poles with iron hooks at the end, the Gauls attempted to tear the logs apart. Earth and bundles of branches were thrown into the ditches, and the Romans, fighting against their foes on both sides, were sorely distressed, since the men at each rampart had no means of knowing whether their comrades would be able to keep the enemy from attacking them in the rear.

Cæsar, on a great height just south of the city, could view the whole scene, sending horsemen with orders directing the reserves wherever they were needed. The fiercest attacks were made on the two legions in the opening of the line, and upon those who fronted the city against the army of Vercingetorix. Gradually the ditches and pits were being filled up, and the Gauls were able to approach the

Roman lines. Cæsar sent his best lieutenant, the Marshal Labienus, to the point where the attack was most dangerous, and at the foot of the hill where Cæsar himself was posted, the attack so nearly succeeded that Cæsar had to ride down to the threatened point to hearten his soldiers.

But the Gauls were driven back everywhere, except where they had attacked the unprotected legions. Calling every man who could be spared, Cæsar got together four thousand Romans, and in his crimson cloak, a garment worn by the Roman commanders only, he led his men to the attack. Just as they reached the thick of the fight, the Roman (or German) cavalry appeared to rescue their comrades and drove the Gauls into the very arms of the approaching forces under Cæsar.

Of the whole sixty thousand men sent to this attack, but few escaped death or capture.

The Gauls were always most fierce in attack, but yielded quickly when discouraged; and the failure of this attempt so disheartened them that during the following night their whole host took to flight, pursued by the Roman and German cavalry, who, until morning, were hunting the fugitives and slaying them.

Vercingetorix gave up all hope of rescue and [ 108 ]

nobly offered to yield himself to the Romans, in the hope of gaining terms for the rest. Cæsar, seated in state, received the Gallic chieftains, among whom came Vercingetorix, richly dressed and fully armed. Riding in state around his Roman conqueror, he then dismounted at the foot of the throne, laid his sword and armour at Cæsar's feet, and yielded himself captive.

This brave chieftain deserved a nobler fate than befell him, for, after six years' imprisonment in a Roman dungeon, he was paraded in the triumph awarded to Cæsar, and then put to death.

The heroic defence made by Vercingetorix at Alesia caused the Emperor Napoleon III, who wrote a life of Julius Cæsar, and also an elaborate study of ancient artillery, to erect a statue of this brave Gaul, at Alise, the modern town that stands on the site of the city that saw Vercingetorix defeated.

From this siege we learn the state of the art of taking cities just at the beginning of the Roman Empire. The next siege is also Roman, and shows how the well disciplined armies of the empire succeeded in attacking one of the greatest strongholds of the Old World, when it was defended by a race as brave as themselves who had every advantage of

position as well as of defences enormous in strength and especially notable for their skilful arrangement in triple lines.

The city of Jerusalem suffered many sieges, but none of them so long contested, so interesting, and so terrible in its cost of lives, as the siege by Titus in the first century of our era, 70 A.D.

# JERUSALEM, 70 A.D.

HILE the Jews were under the domination of the Roman Empire there were many changes in their fortunes. Some of the Roman governors gained the people's goodwill and were loyally supported by them; others by taxation and abuses excited them to revolts, which, however, were never long successful.

One of the most serious of these rebellions took place during the reigns of Nero and his successor, Vespasian, the latter for a time being Nero's general before he succeeded to the throne. During Vespasian's campaigns those who escaped from other cities taken by him made their way to Jerusalem, and gradually in this city a strong force opposed to the Roman government was built up.

But not all the inhabitants of Jerusalem were in favour of the rebellion. War broke out in the city itself between the various parties, and the chief power came into the hands of John of Giscala, head of those who were known as the Zealots—the patriotic party. A very strong party, however, was

headed by another Jewish captain, Simon bar Giora, and still a third, under a very rich Jew named Eleazar, once a lieutenant of John the Zealot, had seized the inner temple and revolted against his own leader; thus making three factions that fought one another within the city walls, all of them oppressing the more peaceable citizens.

Before Vespasian had reached the walls of Jerusalem in his triumphant campaign, Nero died, and, after two brief reigns by Otho and Vitellius, Vespasian was called to the throne and to Rome. For two years there was no further attempt to conquer the Israelites, and then Vespasian sent his son, Titus, to subdue the city. At about the beginning of the siege, in the year 70 A.D., a great multitude of Jews were coming to the city for the celebration of the Passover, so that the city was full of strangers from all over the country at the time when Titus marched his forces against it.

Titus came by boats on the Nile, landed and marched to Cesarea, bringing with him more than five Roman legions as well as some five thousand other soldiers. He made his first camp to the northward of the city, another on the west, and a third to the eastward on the Mount of Olives, only separated from the walls by the Valley of Kedron.

#### **JERUSALEM**

Titus's order of march as described by Josephus, shows that his army was fully equipped with everything that Roman military art demanded for carrying on a skilful siege. In describing the march Josephus tells how it was led by the auxiliaries of light-armed troops, followed by the pioneers, or workmen. Next came the baggage, with a strong guard, then Titus, with a bodyguard of horsemen, a body of pikemen, and the cavalry. Next in line came the military engines, or, probably, the metal parts of these, which were loaded upon waggons drawn by mules. Next followed the tribunes and the leaders of cohorts, the trumpeters, the bearers of ensigns and the Roman eagle, after whom marched the legionary soldiers in their armour, armed with the Roman pilum, or spear, the short sword, and the shield. More baggage and servants, a second body of hired soldiers, and the rear guard, closed the march.

Soon after his arrival, Titus, with a chosen body of six hundred horsemen, started on a scouting expedition around the walls of the city to pick out the right point of attack. Up to this time there had been no sign that the Jews were upon the lookout, but just as Titus turned from approaching the city to ride parallel with the walls, a great throng of Jews

suddenly burst from one of the gates, charged through the Roman horsemen, separating them into two parties, and surrounded Titus and a few of his immediate followers.

Titus had not expected an attack and wore neither helm nor breastplate. But, though darts were showered upon him, he escaped unhurt and led a fierce charge, cutting down all who opposed him and forcing his way through to the main body of his troops. Then he withdrew to his camp.

But the Jews fought one another as eagerly as they attacked the Romans. Not long after this attack, during the celebration of the Passover in the Temple, John of Giscala's men hid daggers under their robes, and falling upon Eleazar's followers slew them in the Temple itself. A general fight followed, which ended in the three Jewish factions being reduced to two which agreed to hold the Temple against all others. These terrible internal fights had caused much of the food to be wasted or burned, and so the city was in poor condition to resist Titus.

Nevertheless, we have seen how bravely they fell upon the Roman soldiers upon their first coming.

This was the first of the fierce sallies the Romans had to meet. A second soon followed. While the Tenth legion was building its camp upon the

Mount of Olives, throwing up the breastworks and erecting their huts after the usual Roman fashion, suddenly another body of Jewish soldiers came dashing out of one of the city gates, poured down into the valley of Kedron, rushed up the hill on the other side, and were in the midst of the disordered Romans, before the legionaries could seize their arms or make the slightest resistance. Even the Roman veterans took to flight.

Titus, who seems to have been a most vigilant commander, came to their rescue with a body of cavalry, riding from the north against the flank of the Jews and driving them down the hill and back into the valley, even up to the very city gates. In this attack Titus fought like the bravest of the common soldiers, and after the Jews had been repulsed stationed along the hill a strong guard for protection, recalling the Tenth Legion to their work upon the camp.

But hardly had this second sally been repulsed than a Jew was seen to mount upon the walls of Jerusalem and to wave his long cloak in the air, apparently as a signal for another attack. A greater throng than before poured out, attacking Titus's men, who had been placed to protect the unfinished camp. Once more a fierce fight took place which might have resulted in the complete defeat of the Romans, except that when the legionaries saw their general surrounded and refusing to give ground, they feared for his safety, were ashamed of their retreat, and rallied in such numbers that the sally was repulsed.

Josephus, the historian, tells how the Romans objected to Titus's risking his life among these desperate Jews, who, the Romans said, were "fond of dying," for their way of fighting was not like that of the Roman soldiers, but more like that of the Arabs of to-day, who will charge without a thought of life even against rapid-fire guns before which they must go down in hundreds.

When the Romans were safely in their camp, Titus ordered as the first step in the siege that the valley surrounding the walls should be filled up in certain places, to make it possible for his engines—that is, his rams and stone-throwers—to batter the walls. The Jews were not strong enough to prevent this work, but they used every means to annoy the Romans, shooting at them from the walls, and rushing upon them from the gates whenever any point seemed not well guarded.

As it was known to the Romans that a large part of the Jews within the city would have been glad

to make terms, the Jews took advantage of this to play a clever trick upon their enemies.

A few days after the valley had been filled up, a great throng of Jews came rushing out of one of the gates near by and moved irregularly toward the Roman army, while from the walls above other Jews hurled stones at them, reviled them, and in every way tried to make the Romans believe that these men were deserters. The fugitives came directly to the Romans, making signs of peace, and offered to conduct a strong Roman force through one of the gates of the city. A large party of the Romans were deceived and went with the Jews to one of the gates, expecting that it would be opened. But no sooner were these Romans in the space between the two towers that guarded the gateway, than they were attacked by the very Jews who had pretended to be friendly, and at the same moment those that were upon the walls hurled missiles upon them from above. In this way many Romans were killed, and only a very few succeeded, by covering themselves with their shields, in fighting their way through the mob and returning to the Roman camp.

All through Josephus's story it is evident that he is saying whatever he can to make himself agree-

able to the Roman commander, and in this case he tells us that Titus did not believe the Jews' pretence of friendship, because they had refused terms only the day before; and he tells how Titus wished to punish severely these Romans who had, without orders, left their places in the line, but that the other faithful legionaries begged mercy for their comrades.

This levelling of the ground before the walls took up four days, and after he was ready to begin the siegework, Titus strengthened his whole line, brought up his baggage, and proceeded to construct the siege-machines and to pour upon the city walls a heavy fire of stones, darts, and arrows. In preparation for the serious siege Titus had burned all the suburbs outside the walls and had started to build a mound against the city.

Meanwhile the Jews erected upon the walls their machines for throwing darts and stones and timbers, but according to Josephus, they did not at first know how to use these, and so shot with very little effect. During all the time the work was carried on outside, the Romans were never free of the fear, day or night, that a strong force of Jews might attack them. They had to build great mantelets to protect the workmen upon the mound.

These, as usual, were made of branches woven together and covered on the outside with rawhides, and would protect from four to half a dozen men 'against all except the heaviest missiles.

The fire of the Roman artillery was terrific. Some of their machines hurled great stones weighing about a hundred and twenty pounds fully a quarter of a mile. These stones were light-coloured, and consequently as they came through the air the Jews were able to give warning of their flight, which they are said to have done by a phrase which Josephus gives as "The son cometh!" It is supposed that the text is corrupt here, and that the original word may have been one meaning "stone." The Romans met this device by blackening the stones, after which they were not so easily seen.

As the Roman machines could be adjusted to fire different distances, it was necessary to know the range. They learned this by attaching a small piece of lead to a cord, throwing the weight over to the wall and afterward measuring the string when it was drawn in. During this bombardment the Roman engineers kept a vigilant watch both day and night, for the furious quarrels inside of Jerusalem had been put aside so that all might fight against the enemy. Not only did the Jews shoot ar-

rows, darts, and stones from the top of the wall, but rushing out with torches and pitch, did their best to destroy the Roman works by fire, pressing their attack so closely at times that they even climbed upon the sheds covered with hides that had been built to protect the engines and their workers. They destroyed some, and Titus was forced to send cavalry and archers both to protect his artillery and rams, and also by their missiles to keep the Jewish archers and slingers from gathering on the walls to annoy the besiegers.

Although the rams had been brought up against the walls, these were so solid that little effect was produced by the rain of blows, except at one corner of a tower where a stone or two were moved out of place. The Roman forces were now able to prevent the smaller attacks, but they could not prevent the sallies of larger forces, and we are told of one attack, coming after a long interval, which was pressed home so closely that the machines of the Romans would have been captured except for the arrival of a new force of soldiers from Alexandria, who, marching in close order, succeeded in driving off the Jews with great slaughter. In this battle Titus is said to have killed twelve men with his own sword.

In order to strengthen the works outside against these sallies Titus ordered the construction of three great towers, each fifty cubits in height—that is, a little less than a hundred feet.

These great siege-towers were enormously heavy, and were covered with iron plates. One of them fell, one night, shortly after it had been put together, causing a great panic among the Romans, who ran about "demanding the watchword," that they might know one another in the darkness. The two remaining towers, however, being too high to be reached by the missiles of the Jews, too heavy to be overturned when struck by stones fired from the battlements, and being protected against fire by the iron plates, enabled the Romans to keep up a constant fire of arrows, darts and stones, downward upon the walls, which were soon cleared of the Jewish soldiers. Then Titus was able to bring up the largest of his rams, which was called "Niko," from the Greek word meaning "I conquer." The work of this ram was so effective that the Jews decided to abandon the wall; the Romans climbed up and took possession of it, and thus took the first line of defence within fifteen days after the beginning of the siege.

Having thus entered one part of the city, Titus [ 121 ]

formed a strong camp inside, just out of range of the second wall where the Jews gathered in great numbers, and gave the Romans not a moment's rest. No hour, day or night, was free from fighting; both Jews and Romans slept in their armour, ready for an instant call, and both were worn out by the incessant fighting. In these fights many bold feats of arms were performed by single soldiers, the Jews pitting against the Roman valour a desperate courage that valued not life if they could slay a Roman as they fell.

Titus's main attack was against a great tower apparently abandoned by the Jews, but really occupied by eleven desperate men who lay there in ambush. The Romans were too wary to climb into the apparently empty tower, but finally one of them, named Æneas, volunteered, and was slain by a stone thrown by one of the Jewish soldiers. Meanwhile the Roman ram outside played so vigorously against the tower that all hope of saving it was abandoned by the Jews, who set fire to it and then seemed to the Romans to leap directly into the flames, though really they escaped by a passage leading underground.

To take the second wall required only five days of fierce fighting, but even after the Romans had

made their entry, the Jews rushed upon them so fiercely as to drive them out again. A large force of Romans was now gathered, made a second assault upon the broken wall, once more captured it, and within a few days had levelled it to the ground.

Next, in order to impress the Jews with his strength, Titus suspended the siege for five days, during which his soldiers, arrayed in their best armour, were drawn up in massive columns before the city and received their pay. During this interval Josephus was sent to persuade his fellow countrymen to surrender, and fills pages of his history with the eloquent and moving speeches which he claims to have delivered. But those whom Josephus describes as "crazy fanatics," and whom it is possible to regard as devoted patriots, prevented the rest from yielding, despite the loss of two out of their three great defences, and despite the ravages of a famine so terrible that we may well omit to tell the horrors which Josephus relates, only recording that the starving Jews made their way out of the city in such numbers in search of the few herbs and roots that could be found between their walls and the Roman lines that they were captured by the Romans at the rate of more than five hundred a day. After the unutterably cruel custom of the time,

these poor creatures were crucified within sight of the walls, to induce their fellow countrymen to surrender.

When the siege was resumed, Titus began four great mounds against the third wall. Upon these the Jews once more began their fierce sallies, and were able to direct against their builders a much more effective fire, since their skill by constant practice had greatly improved and they had been able to increase the number of their machines to three hundred that shot darts (ballistas) and forty that threw stones (mangonels).

While fighting thus bravely, most of the Jews were in the extremity of starvation and in the quest of food fought one another, or robbed the helpless, without scruple or mercy. The refugees from the city continued to go to the Romans until even these hardened soldiers were tired of slaying them.

In so fierce and constant a battle all details are lost. We can only tell the general features of the fighting. One of the great Jewish strongholds was the Tower of Antonia, which stood just to the northwestward of Solomon's Temple, based upon a lofty rock. To take this, one of the great mounds had been built. But the Jewish leader, John, undermined it—that is, dug a great hole beneath the

mound, supporting its roof by timbers. Then filling up the space thus made with wood and rubbish covered with pitch, he set fire to his mine just about as the mound was completed. The wooden supports were burned away, and the front of the mound fell in.

Meanwhile the other Jewish leader, Simon, tried to destroy the other mounds and to burn the artillery and rams, carrying his attack so far that he even reached the walls of the Roman camp within the city, being repulsed only after the Romans brought their reserves under Titus to attack the Jews on the flank. All the mounds were destroyed in this way, either by undermining or by fire, whereby the Roman work was all to do over again.

Titus now held a general council of his officers, discussing the right way to continue the siege, and it was decided to surround what was left of the Jewish defences with a great wall over six miles in length and containing at intervals thirteen posts of greater strength for garrisons. At this work the Romans strove eagerly, as it promised them safety from the terrible sallies; and when in three days it was completed, Titus kept it under constant inspection that it might not be broken through.

This shut in the Jews entirely, and the ravages of

famine were worse than ever, while the Romans, who had plenty of provisions sent from Alexandria and the country round about, cruelly taunted the starving Israelites by exhibiting their plenty. Innumerable bodies of the dead were thrown from the Jewish wall until the city was surrounded by them.

Four new and larger banks, or mounds, were begun, the materials having to be brought from eleven miles away, since all suitable material nearer had been long ago used up. These new banks took three weeks to build, but despite desperate attacks of the Jews, which, however, daily grew weaker, the Romans were able to bring their engines close to the strong Antonia Tower; and also, by gathering in strong forces and making a roof, or testudo, of shields over their heads, they worked fiercely at the foundations to undermine the wall.

At last, one wall having fallen into the opening left by the first Jewish mine, the Romans discovered that another wall had been constructed behind the first. Here Josephus gives a long declamatory address wherein Titus appeals to his troops to make the assault—an address which it is hard to imagine put into the mouth of a modern general. A body of eleven Roman volunteers attempted to carry the breach, but their leader and three others

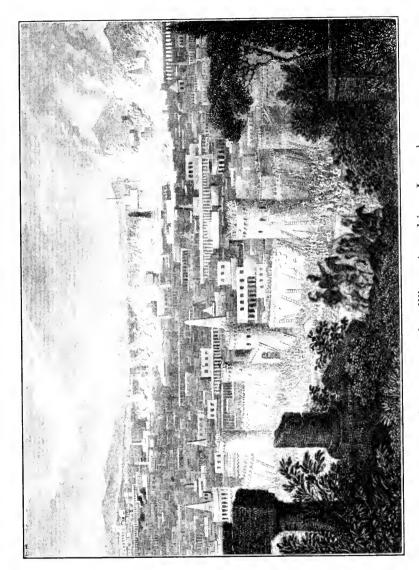
were killed and the other seven seriously wounded. No other Romans coming forward for several days, the Jewish defence seems to have become careless, for a night attack, made unexpectedly, succeeded, and the Romans were able to take possession of the breach.

The Romans were now in possession of the Antonia Tower, but met with a firmer resistance than ever when they tried to force their way into the great Temple just south of it. Here began again the old story of hand-to-hand fighting by night and day, but the Romans were not able to make their way into the enclosure of the Temple. One centurion, named Julian, seeing his comrades afraid to advance, at one time pushed forward singlehanded and drove the crowd of Jews back. But, slipping on the marble floor because of the nails in his shoes, he was slain by the Jews, despite the most gallant fighting, and not a Roman went to the help of their brave champion.

Meanwhile the Romans holding the breach were gradually able to enlarge it, and the Jews ranged opposite them dragged their engines forward so as to command the point attacked. Besides the hand-to-hand fighting, the Jews resorted to strategy. Thus at one time they packed a portion

of the Temple building full of combustibles and then lured the Romans forward by a pretended retreat, setting fire to the pitchy wood as they retired. A great conflagration sprang up at once, and most of the attacking Romans lost their lives. But this success was dearly purchased, for the Romans, seeing part of the Temple burning, took pains to extend the flames, and, thus destroying part of the walls, made the Temple at that point more difficult to defend.

The Romans constructed mounds between the Tower of Antonia and the Temple wall and set three battering-rams to work, but these rams were captured by the Jews after a fierce hand-to-hand struggle. Once more the Romans resorted to fire, and succeeded in burning down a part of the Temple building that faced the Antonia Tower. Since six days of battering had failed, it was evident that only fire could clear a path for the grand assault. Josephus pretends that Titus regretted the burning of the Temple and did all he could to check the flames, but there is little doubt that whatever their commander may have desired, the Roman soldiers saw the Temple could be taken in no other way, and eagerly carried the flames wherever they could find material that would burn. At length the whole



The Romans under Titus Attacking Jerusalem



structure was ablaze and continued to burn for two days. Amid a fearful din of roaring fire, shouting Romans and shrieking Jewish citizens, the last great attack was delivered by the Roman legions and the Jews were slain by thousands in every part of Solomon's great Temple, even at the very altar itself.

After the taking of the Temple, however, there was still a part of the upper city unsubdued. The Romans, full of triumph, were certain of taking the whole city, and in eighteen days' work succeeded in raising mounds against the last wall of defence. The last wall was soon broken down, and the Jews scattered, each seeking safety for himself. Some of them went into underground refuges, but most were slain in the streets, through which the Roman soldiers roamed with swords drawn, slaying without mercy men, women, and children.

Soon after, Titus gave orders that the whole city should be destroyed, save only the three great towers built by Herod, which he left standing to show how strong the fortifications had been.

The siege of Jerusalem had taken even the Romans over four months of the fiercest battling by day and by night, and had required all their bra-

very, science, and fortitude. More than a million Jews met death, and nearly one hundred thousand were taken captive, to go into slavery, to fight in the arena, to be led in triumph after Titus's chariot.

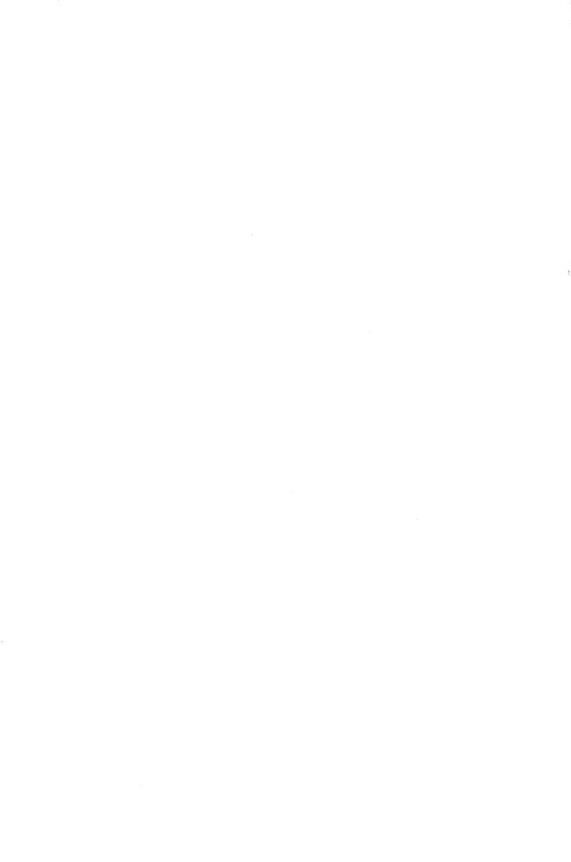
The treasures of Solomon's Temple were paraded before the eyes of applauding Romans, and the exiled Jews were sent into every quarter of the globe—no longer a nation.

## THE THIRD PERIOD

Siege of Constantinople, by Saracens Siege of Paris, by Northmen Siege of Antioch, by Crusaders

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## THE THIRD PERIOD

HE change from the second to the third period came about partly from the general advance in civilisation. During the second period there had been conflicts mainly between enormous bodies of men belonging to different nations. The places attacked, though some of them were great strongholds, were mainly the chief cities of large countries outside of which there was little except small villages that did not dream of resisting a large army.

But these armies, which had been to a great extent modelled upon the Romans' organisation of strong legions of foot soldiers fighting with dart and short sword, had, at a later date, greatly changed their character. There had been increasing use of cavalry. The Roman army had been accustomed to use its mounted men merely as scouts, as an advance guard to protect the wings, or ends of their line of battle, and to open an engagement or complete a victory when the main body of the enemy had been broken.

The third period brings us to the Middle Ages and to the days of feudalism, when gradually civilised mankind was being divided into two great classes, the land-owners and their tenants, or serfs, who were under their control. The feudal lords and their retainers were unwilling to fight upon foot, and also were unwilling to intrust power to the lower classes; consequently the mounted men became in all armies the most important part of the force, and the foot soldier was looked upon only as an assistant to follow up the attack of the mounted soldiers or to remain in reserve and to rescue the retreating cavalry. At the same time civilised lands were being divided into a number of small, more or less independent, portions. Instead of one king reigning over a large nation and leading all of its forces to battle, in the Middle Ages there were great numbers of petty lords, each with his small stronghold and his petty dependants who went to battle under his leadership. Except among the less civilised nations, or when some great enterprise like the Crusades brought vast bodies of men together, great armies were seldom seen. Consequently the strongholds that were built were very numerous, but usually rather fortified posts than walled cities. The nation, instead of being one of

#### THE THIRD PERIOD

many towns dominated by a few big cities, became a place of widely distributed villages, each surrounding a single stronghold or mediæval castle.

Thus although the art of taking places by siege was by no means lost, and indeed was used frequently against large places, most battles came, in the Middle Ages, to be fought in the open between smaller bodies of men, and it was seldom that a great army was marshalled against a strong castle.

We shall find during this period the first hints of a new form of warfare, a form that might be called "warfare by chemistry." This is marked by the appearance of the celebrated Greek fire, which at first chosen because of its power to burn, showed an explosive force that greatly terrified the enemy, and so was valuable. As the makers of Greek fire learned to increase its explosive power, it was used to propel itself from tubes, and the step from this use to that of driving stones and iron balls was soon taken. Greek fire thus became the forerunner of gunpowder, and brought about a complete change in sieges, in forts, and in the art of war. But this was not established until the fourteenth century, and until this time Greek fire was only a weapon used in connection with those that had been known for ages. But these latter were greatly developed

and improved. Only because of the first use of Greek fire is the siege of Constantinople by the Saracens, in the eighth century, here related, and something more is there told of this substance.

It is stated by Captain Jervis, author of "Engines of War," that the Greek fire was thought to have been revealed to the Emperor Constantine by an angel from heaven, who told him he must use it for Christians only, and never divulge the secret of its making. Whoever should disclose it was to be declared accursed. The secret was kept over five hundred years before it became known to the Saracens.

An English antiquarian points out the possibility that in our word "cracker," as used in "fire-cracker," it may be that we have preserved the Anglo-Norman word *crake*, or "cracker," a name applied in early times to all explosives; but this is doubtful.

# CONSTANTINOPLE ABOUT 717 A.D.

The taking of cities on account of the early sieges of Constantinople by the Saracens. In the first place, it was not one siege, but a long series of attacks extending over forty-four years, each conducted in the same way and with the same lack of result. In the second place, the city was not then taken, and there is nothing in these attempts of the Saracens to help us in understanding siegemethods, for the reason that the attack was not carried on in a scientific way and yet would have been successful had it not been for the use of something new in warfare, or if not entirely new, new in the way it was employed.

The Saracens, in extending their conquests over Africa and Asia, had, for the most part, taken cities by mere force of numbers and by impetuous attacks which nothing could resist. They fought, as has been so often said, almost with a desire of death, and in the belief that death in battle meant immediate entrance into a heaven of delights.

Before approaching Constantinople they had already taken Damascus and Alexandria, from which many clever engineers had made their escape into the greater and stronger city upon the Bosporus. Either one of these refugees, or, to repeat the commonly accepted story, Callinicus, a Syrian architect coming from Heliopolis, brought to the city the knowledge of the composition of a burning substance that has received a great number of names. Perhaps the best known is "Greek fire," but it has also been called wildfire, wet fire, fire-rain, and Medean fire. Its composition was a secret so well kept that in spite of the various attempts to give its ingredients we are not certain just what these were.

It was a semi-liquid that contained, usually, sulphur, pitch, nitre, and petroleum, with possibly other explosive compounds. We know that it produced a thick smoke, a light explosion, and a fierce flame that could not be put out with water, but was spread by it, especially by salt water. The only means of extinguishing it seems to have been either vinegar or wet sand.

Burning substances had been used in warfare for many ages, being shown even upon the old Assyrian sculptures. They were known to the Chinese, to the Persians, and to the Romans, but at the time of this

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siege of Constantinople there seems to have been some new and more effective method of preparing the burning liquid, for all the stories of its employment agree that it was terrible and effective in repelling attacks of men, in burning towers and ships, and that it was used in many methods which showed that it was prepared in a number of different forms. Certainly the secret of Greek fire was well kept, and the fire itself kept the city from falling, as others had done, into the hands of the Mohammedans.

The methods of the Saracen attack were, as has been said, usually plain assaults. Thus the city of Damascus, which was taken only about a generation before this attack upon Constantinople, finally fell only after its Roman defenders had been defeated in the open field. The Saracens had again and again attempted to swarm over the walls, but without success, when, to the great joy of the hard pressed garrison, the Roman general, Heraclius, brought up an army to the city's relief.

Thus strengthened, the garrison threw open the gates and marched forth to drive away their Saracen foes, who had already begun to retreat. The Romans followed so closely that they succeeded in capturing the rear guard of the Saracen army, and

their women and children. But when the Roman general attempted to take possession of these captives, one of the Saracen women, enraged by his insults, snatched from the ground the sharp pegs that held down the tents, and calling her women around her, fought desperately against the Roman soldiers.

While the Romans hesitated to slay these women, or to attack them, the Saracens, recovering from their first alarm, wheeled and rode back, attacked the Romans, unprepared, and put them to flight, then advanced once more to the walls of Damascus, where they made a new assault and took the city, pursuing and slaying the Romans for miles upon the surrounding plains.

Apparently, the only difference between the earlier and this last attack was in the fierce bravery of the returning Saracens, rather than in any new method employed to take the city.

There was a tradition among the Mohammedans that whoever should first succeed in taking Constantinople, the city of the Cæsars, would not only have all his sins forgiven, but would succeed to the heritage of glory handed down by the Roman emperors. Since there had been, about the year 700, many changes on the Imperial throne, it was thought that the city would not be likely to offer

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any serious resistance; and, on the other hand, the Saracen empire was at its highest power and its greatest extent, reaching from India all along the southern shore of the Mediterranean northward into Spain, where it was bounded only by the Atlantic and the mountain heights. One historian says, "It seemed as if this Saracen crescent would grow into a full moon, covering all Europe." Nowhere had the cimeters of the invaders failed to win them victory.

Against Constantinople for the final attempt was led the best army that had ever attacked the Christians, consisting of eighty thousand fighting men, while the Caliph awaited the result of the attack of this first force to furnish as many more men as might be required. According to Finlay, who wrote the "History of the Byzantine Empire," a hundred and eighty thousand men were employed in the expedition in one way and another.

The Saracens captured the city of Pergamos, then marched to Abydos, and here, having joined their fleet, crossed the Hellespont and surrounded Constantinople. Toward the land side, Constantinople was protected by three high and thick walls, built higher as they were nearer the city, and each so pierced with loopholes that those within could

fire upon the assaulting army from several different levels, concentrating the fire of a number of lines against the attacking army. Owing to the heavy fire from these loopholes and from the engines that were set upon the top of the walls, every attempt to place ladders against the walls and to climb over them was repulsed with heavy loss, and the Saracens finally decided that they must blockade the city and, if possible, starve out the garrison.

To prevent provisions being brought in, thousands of Saracen soldiers were sent to ride over the region to collect forage for the army and to destroy what they did not need for their own use. Meanwhile the rest encamped behind a strong earthwork, which had been protected by a deep ditch, in order that they might defend themselves against sallies from the besieged city.

To blockade the sea wall, the Saracens sent their fleet of eighteen hundred vessels and transports, to guard the whole line of the coast. As a portion of them were entering the Bosporus, the strong current and a heavy wind threw a number of these ships into confusion, when the Greeks sending out swift galleys loaded with combustibles, succeeded in burning a number of the Moslem ships and in driving others ashore.

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Enraged by this attack, the Saracen admiral selected his strongest vessels, and putting in each a hundred Arabs in complete armour, sailed directly up against the sea wall and by raising ladders attempted to force his way into the city. Here the Saracens met with the terrible Greek fire, poured from caldrons, thrown from great ladles, shot from war-machines. The sticky, burning, explosive liquid set fire to his vessels, burned a number of them, and forced the rest to retreat. No doubt the substance was greatly feared by the Moslems, as it had already been used against them in their earlier siege in 673.

To put the story of the siege briefly, we may say that every attempt to approach the walls was defeated either by storms of missiles or by torrents of Greek fire, and the Saracens were compelled to withdraw to their fortified camp, though they were too obstinate to give up the siege. The Caliph, who had promised to send reinforcements, died, and the Saracen army received but few additions. As winter came on, it proved to be most severe, and the country round about was covered deeply with snow. The horses and camels of the Saracens died for want of forage; the soldiers themselves, unprepared for the northern climate, also perished in great num-

bers and were soon nearly starved from the difficulty of procuring food.

The Constantinople forces, having had ample time to prepare for the siege, were well provisioned and did not suffer. When spring came, two Saracen fleets arrived from Africa and anchored in the bays near by, but did not dare to approach the walls for fear of the Greek fire or the fireships.

Many among the crews of these new fleets were Christians, and seeing the weakness of the Saracens, they seized small boats and escaped to Constantinople. These refugees told of the misfortunes of the besiegers, and at once a fleet was sent out from Constantinople and succeeded in sending fireships among the enemy's vessels and also in approaching near enough to shoot Greek fire upon them from tubes set in the prows. Some ships were captured, some driven ashore, others burned.

This destroyed all hopes of Moslem success. But not until many of their foraging parties had been captured and all horses and camels and mules eaten, did the Moslems give up the attempt to take the city. The few ships remaining from their fleet were all that they needed to carry away the remnant of their great army, for out of a hundred and eighty thousand only thirty thousand survived.

#### CONSTANTINOPLE

Even after the retreat their misfortunes did not end. They were caught in a storm while passing through the Grecian Archipelago, were attacked by the Greeks of these islands, and at last only five of the Saracen squadron returned to tell the story of the Saracen failure.

Finlay, from whose book the facts are taken, ascribes the victory partly to the possession by the Greeks of engines of war far larger and better than those of the Saracens; and not only did these engines throw the usual missiles, but also the terrible Greek fire to which the defeat of the Saracen fleet was due. The people of Constantinople had been accustomed to the use of Greek fire since about the year 673, or over forty years, for it was during the siege by the Saracens in that year that Callinicus is said to have told the emperor, Constantine Pogonatus, how to make it. Constantine had used the Greek fire by projecting it from tubes set in the prows of fast galleys, and at a later time not only was it so used, but was projected from small tubes held in the hand or thrown in jars that would break as they fell. In later times the Greek fire was frequently used against the Saracens, and by some historians is believed to have been the salvation of Europe from the Mohammedan invaders.

Europe was contending also against the northern races who pressed upon their more civilised neighbours to the southward just as the Saracens were attacking on the eastward and all along the southern shores of the Mediterranean. Out of the great turmoil of races were to come modern European nations. Some idea of the struggle farther north is given by the siege chosen for the next telling—that of the Northmen or Danes in their attempt to take the old city of Paris. The Danes fought for plunder, and though at first they had little skill in war, they learned quickly from their enemies, and thereby became so able in attack and defence that before many centuries they had established themselves firmly in France, England, Russia, and Italywhere they united with the people, and gave strength to the races they overcame.

The siege of Paris by the Danes in 885 did not differ in the nature of the operations from sieges three and a half centuries earlier, nor from those more than two centuries later. This long period of more than five hundred years saw little or nothing new in the taking of cities or in methods of defence. In every case, the idea of those outside was first to fill up the ditches and then, by the aid of ladders, to climb over the walls. If they could not do this, they

### CONSTANTINOPLE

tried to break down the walls with rams, or to bring up great towers, and by means of heavy volleys of darts, arrows, and stones to drive the defenders from the ramparts so that the walls could be attacked without loss.

The usual rams had blunt heads, and by being swung against the walls again and again would shatter them. If instead of a blunt end, a sharp point was put on the great swinging timber, the engine was called a "bore," and was meant to pick out single stones, and so bore a hole through the walls. This opening once made could be easily enlarged into a breach.

Both of these machines had to be protected by heavy sheds of timbers covered by rawhides, as burning pitch or oil and heavy stones were showered upon them from the walls as soon as they were brought near enough to reach the stonework. They had also to be guarded so that they could not be attacked by parties of soldiers sent out or lowered from the walls to destroy them.

The defenders could protect the walls either by putting great mattresses or wooden guards between the ram-head and the stone, or by catching the rams in looped chains or ropes or in forked timbers. The ram was sometimes broken from its fastenings by

heavy timbers dropped upon it. But in all there was nothing new, as we know.

The sharp-pointed bores were lighter than the rams, and so could be more easily moved. They were called by a number of fancy names, of which Charles Oman gives a few. Thus, in Latin (and most of the siege stories of this time are in Latin), we find the bore called a "musculus," or "little mouse," because it gnawed a hole; a "catus," or cat because it clawed out stones; a "vulpes," or fox, because it burrowed; and a scrofa or sus, that is, a sow or hog, because it rooted its way through the stonework.

Mining was very common, and has always been carried on in much the same way. Before gunpowder, mining was followed by filling up the hole under the wall or tower with timbers and rubbish. When these were burned, the ground above caved in. To guard against mining, those inside had to find the mine, dig out to meet it, drive out the enemy's miners, and fill up the hole.

Scaling ladders were made in every form, of wood, of rope, of iron. Though men trying to climb these could easily be thrown down, yet when defenders were few and ladders were put up in many points at once it was hard to meet all the attacks; and at

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night constant watch had to be kept at all points for fear some party would erect a ladder and steal upon some unguarded portion of the wall.

Great moving towers, built of wood and higher than the walls, meant to be rolled up directly against the defences, were, as we have seen, much used in the old Roman sieges. They were often many stories in height, and had big bridges drawn up against the front with hinges at the lower ends. When these were close enough, heavy volleys would clear the walls of defenders, the bridges would be dropped, and knights or soldiers could march across —as Alexander's men did at the siege of Tyre. These towers needed a smooth level road to the walls, and were of such enormous weight that the path for their advance had to be solid or they might sink in and upset or remain immovable. Sometimes, too, they could be battered to pieces by heavy stones flung from machines; or they might be set on fireas was so often done when Titus was trying to take Jerusalem.

As to artillery before the invention of gunpowder, we have already told something. But it may be well to divide the different kinds into classes. Those that threw the biggest stones were called "mangonels" or "mangons," from a Greek word mean-

ing a trick or machine. The mangonel consisted of a long timber put between heavy ropes fastened between upright posts. When the timber was pulled back, the ropes were twisted, and then, the timber being let go, it flew over so as to fling anything put upon its end high upward and forward. It did not always shoot with the same force or accuracy, but could throw heavy beams, stones, or barrels and pots filled with burning pitch, could batter big walls, or by lucky hits could disable the engines of an enemy. The catapult and the trebuchet worked in a similar way. In later times—after the year 1100—weights were sometimes used instead of twisted ropes, as in the earliest forms.

The ballista was a big bow, worked by machinery. It shot darts, arrows, and beams, and could be aimed straight at the object. In fact, the ballista was a big cross-bow, and it is believed that the cross-bow was only the ballista made small enough to be carried by the soldier. The use of these terms is, as has been said, mixed up and uncertain. Some writers used one, some another for the same machine, but the general plans of them all were these two—the big beam throwing things by hurling them in a long curve upward, and the big bow that shot bolts or darts in a nearly straight line.

# SIEGE OF PARIS IN 885

URING the Dark Ages, though there was much fighting and many sieges which were more or less interesting, it was not a time of letters, and very few good descriptions of these sieges have been preserved. The few about which we know something have been described mainly in long poems written more for the purpose of glorifying feats of arms than of telling the plain facts of methods of warfare.

Charles Oman, who has written a most interesting "History of the Art of War," says that we have a better account of a certain siege of Paris by the Danes than of any other during this whole period, that is, down to the time of the Crusades. This description comes in a long Latin poem written by a French poet named Abbou, surnamed "The Crooked." He was a monk of St. Germain des Pres. Though his Latin was not good, he tells his story well and in full detail, and from the poem Oman has given us the full story of this siege.

The Paris of that day consisted mainly of the

island that is now the centre of the city. It was surrounded by walls connected with the two shores of the river by bridges protected on those shores by towers. These bridges were of wood supported by piles of stone. The towers were of stone, but the one on the north side of the river was little more than a third finished at the time when the great army of Danish soldiers arrived at the city and begged for permission for their vessels to proceed under the bridges in order that they might invade France. Though the Danes promised to do no harm to Paris itself, Odo, the Count, and Gozelin, the Bishop, of Paris, bravely refused on the ground that the Emperor had intended Paris to protect the rest of France against invasion. Siegfried, the commander of the Danes, then threatened to take the city by force or by famine.

Landing from their boats, the Danes rushed upon the half-built tower, but after a vigorous fight, were driven back with loss. It had been so close a struggle, however, that the French spent the whole night in carrying from the city timbers and logs to increase the height of the unfinished tower, and in the morning the Danes found the tower twice as high as it had been the night before.

It was now too strong to be taken by assault,

so the Danes wove branches together to make mantelets, or shields, and carrying these over their heads, a strong column of men marched to the foot of the tower and then began to tear away the foundations, using heavy logs the ends of which were shod with iron points. But, expecting such an attack, the French had brought great caldrons of oil and pitch, and setting fire to these, they poured them down upon the mantelets. This set fire to the shields and the men beneath them were sorely burned, so that flinging their protection away, they rushed away and jumped into the river.

The Danes' next attempt was to dig underground a mine leading to the bridge tower. This was propped up, as usual, with timbers, then filled with combustibles, which, being set on fire, burned away the timbers and allowed the ground to fall in beneath, carrying away a part of the bridge tower. Again the Danes were driven back by timbers and stones dropped from the top of the tower upon the attacking column.

Once more the besiegers came forward, placed a great pile of wood against the door of the tower, hoping to burn it down; but when their big fire was lighted, the wind blew it away from the door and drove the besiegers back. From the tower and the

walls of the city during these attacks was poured so fierce a volley of bolts and darts, of stones and arrows, upon the attacking columns, that the Danes could not remain within range, but retreated to their boats after a loss of three hundred men.

Any attempt to take the city by direct attack seemed hopeless, so the Danes built themselves a fortified camp protected by a ditch and stakes, and settled down for a regular siege. Their engineers built three great battering-rams, each covered by a strong timbered shed supported on sixteen great wheels. These sheds were big enough to hold sixty men. But the attacks of the Danes being delivered all at one point, the French were able to pour such a volley of missiles upon them that they were not able to bring the rams into action, probably because of the heavy stones thrown by catapults from the walls, and because they could not fill up the ditch that defended the walls without exposing their men to the French artillery.

To protect themselves, they now made other mantelets, each covered with rawhides, of which they had plenty, since they had collected from the whole neighbourhood great herds of cattle, as well as a vast store of corn. While the men beneath these shields were filling up the ditch, throwing in, says

#### SIEGE OF PARIS

Oman, clods of earth, boughs, straw, rubbish of all sorts—even their cattle and their French prisoners—an attack from the river was made at the same time, the boats being run against the sides of the bridge. All this was done under a constant fire of missiles from the city, but in spite of it the Danes at last were able to bring up the three rams close to the bridge-head and again to destroy the tower.

The French had prepared great forked beams with which they caught the heads of the rams, and they had also built great stone-throwing machines that hurled rocks of such size that they struck down the mantelets and killed the men underneath.

After three days the Danes were driven back, having lost heavily in men, and leaving two of their rams disabled. The fight at the bridge, meanwhile, had been fierce; and at one time the Danes nearly succeeded in burning it down by means of three fire vessels towed against it. But the piles of stone on which the bridge was supported kept the vessels from getting near enough to set it in flames, and the accurate marksmanship of the French engineers soon sunk the vessels by hurling rocks upon them.

So far the besiegers had failed at every point, but a few days later heavy rains had so swollen

the rivers that the flood carried away part of the northern bridge, leaving twelve unfortunate French soldiers cut off in the tower. When the Danes discovered how weakly the tower was defended, they pushed a wagon full of straw against the gate. The defenders of the tower were too few to drive the Danes away, and the smoke from the burning cart prevented much damage from the engines upon the walls of the city. The upper part of the tower was soon in flames, and the French were forced to take to the broken bridge.

It is said that the Danes professed admiration for these brave men, promising to spare them if they should surrender, but as soon as the twelve men were disarmed, they were slaughtered and flung into the river. The Danes now sent some of their vessels through the broken bridge, probably to get provisions, and there came a lull in the siege.

During this time the French sent out a party to seize and burn the deserted camp, but found it still guarded by a heavy force and were compelled to retreat.

But in return for the good fortune of the besiegers, there now came help for the besieged. The Duke of Saxony appeared with reinforcements, the Danes retired into their camp, and the relieving

#### SIEGE OF PARIS

force were able to put stores into the city, and probably to strengthen the garrison. Then the tower on the bridge was taken and rebuilt while the Danes still remained in their camp. The Duke of Saxony made an attack upon the Danes' fortified camp, but was driven off and marched away from the city, possibly because there were not provisions enough for the citizens and for his men had they remained.

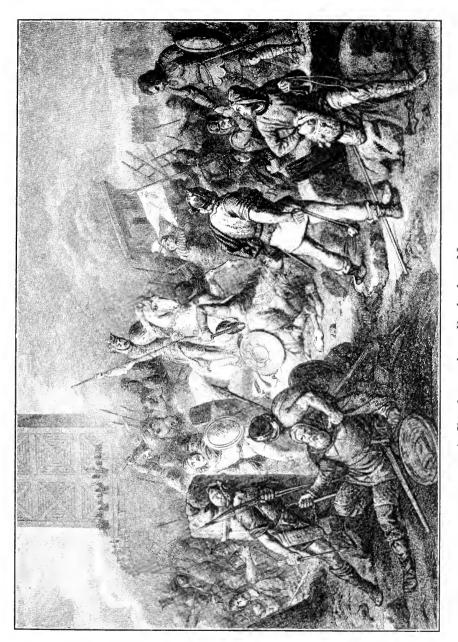
Some of the Danes now crossed the river to the southern side, and after a dispute among their leaders it was resolved to make one last attempt to take the city. Bringing up their boats, they landed men at the foot of the city walls, and also sent forces against the two bridge towers; but all of these attacks were driven off, and one of their leaders, Siegfried, consented to give up the siege, after receiving sixty pounds of silver.

Another leader, however, continued it, hoping for success because a pestilence had broken out in the city and one of the chief defenders, the Bishop, was dead. No very vigorous attempt to take the city was made, except one attack in which the Danes reached the city walls on the island, climbed at one point over the wall by means of ladders, but were driven back by the defenders before a stronger force could come to their aid.

After this attack a second relieving army appeared, fought its way into the city, and reported that an army of the French was coming to the rescue. But before Charles the Fat had brought up this force, the Danes made a grand attack, concentrating tremendous fire upon the walls of the city from their engines, and at the same moment attempting to climb upon the bridges and the island wall by the use of scaling-ladders, as well as to burn the wooden tower at the head of the northern bridge, which was now protected by a sort of fort of heavy timbers. They almost succeeded in burning this fortification, but the attack failed here and everywhere else.

Not long after this failure, Charles the Fat came up with a large army and bribed the Danes to pass by and to march into Burgundy, where they made another unsuccessful attempt at besieging the city of Sens.

The effect of these successive attempts to hold cities against the Northmen was gradually to encourage the French against their attacks thereafter. Oman calls attention to the fact that these so-called "barbarians" used in the siege all the engines of war that had been known to the Romans, which it



A Battle against Besieging Normans



#### SIEGE OF PARIS

is believed they had learned from their enemies. But against this display of knowledge is to be set the stupidity with which they failed to surround the city and to prevent its being relieved. If the Danes had been able or willing to build a strong set of siege-works around the city, so as to cut it off from receiving provisions or reinforcements, they would no doubt have captured the town.

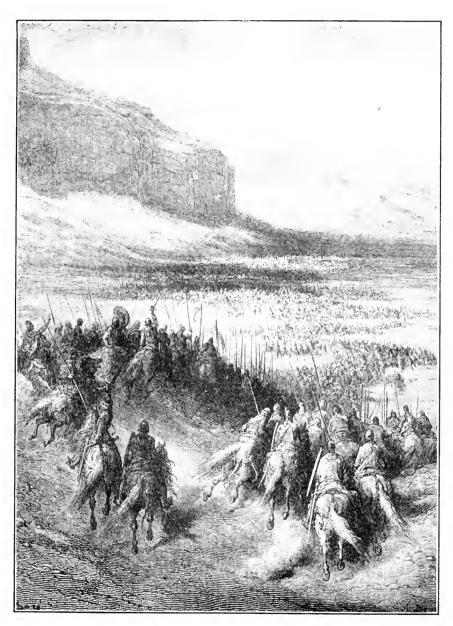
Although in passing from this old siege by the Danes to the siege of Antioch by the Crusaders we go over more than two centuries, we shall not note any great advance in the art of the besieger. The Crusaders were not in any sense learned in the history of the past. Their warfare had little of science, and though they made use of some of the better known siege apparatus, yet we find in their books upon sieges little that is new. Usually their conquests were by force of numbers and brute strength. Often their plans were defeated by their jealousies of one another, but the taking of Antioch gives at least a good idea of how the Crusaders fought, both before the city walls and in the open fields.

# SIEGE OF ANTIOCH, 1097 A.D.

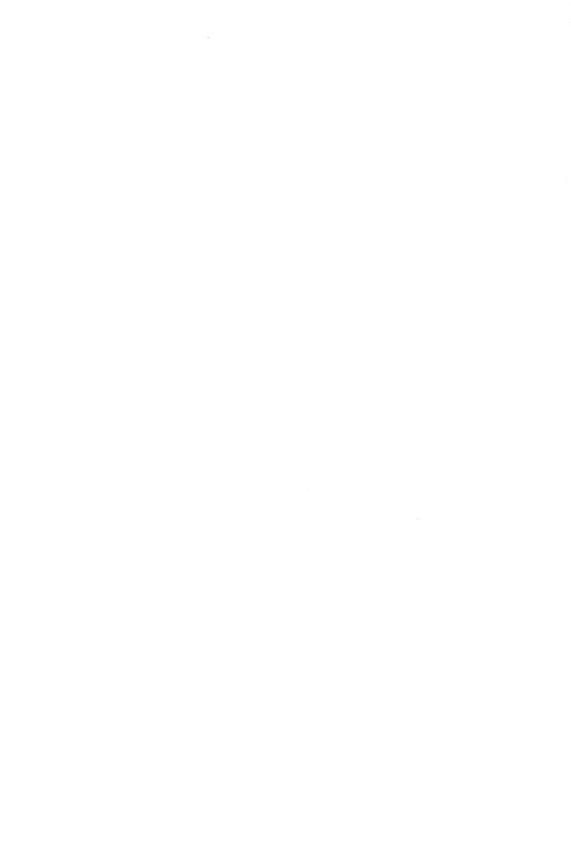
HE siege of this city, in Syria, is notable as the first in which the Crusaders had all agreed to act together for the common good, since they had found in former battles and sieges that the jealousy of different commanders and bodies of troops had brought disaster.

Antioch lies in a valley on the Orontes River, about eastward of the Island of Cyprus and ten miles from the shore of the Mediterranean. It was surrounded by a double wall, guarded by four hundred and fifty towers, and, in addition, there was one stronghold, or citadel, against the southern wall. The river ran along the length of the northwestern wall, departing from it more widely as one went eastward, and leaving a broad triangular plain just to the north of the city.

Against this great fortification marched an army of three hundred thousand men, the strength of which was mainly in its mounted knights in chain mail. The Turks, who then held the city, before the coming of the Crusaders had turned most of the



An Army of Crusaders



Christians out of the city, retaining their wives and children as hostages to prevent them from joining the enemy. They had strengthened the fortifications as much as possible, had collected ample stores, and within the city they could command a force of perhaps twenty-five thousand men, six or seven thousand being horsemen.

The Christian army marched upon the city on October 21, 1097, saluted the City of the Strong Walls with shouts and the blasts of trumpets, to which no response came from the silent Turks. Marching to the plain northward of the city, the Crusaders spent fifteen days in bringing in provisions and cattle from the surrounding country, destroying the farms and houses round about, felling trees and bringing together a great mass of material with which to build themselves a camp. It seemed as if they were about to found a town in the valley before the walls. Not only did they make shelters and erect tents, but the multitude of camp followers, men and women, some of the very worst description, erected booths and houses of entertainment as if preparing for a great fair.

There seems to have been little military discipline. Luxury and riot ruled everywhere. Fruits, corn, cattle, had been brought in in such profusion

that the men disdained to eat any but the choicest portions of food or to drink anything but costly wines. It seemed as if the vast host had gathered for a disgraceful merrymaking. No thought was given to the Turks in the besieged town, the surrender of which they thought would take place daily. Yet of all the gates of Antioch, the besiegers commanded but three, all those upon the southern side of the city being open, enabling the Turks to communicate with their friends outside.

In order to procure forage for the thousands of horses in the knights' camp, parties were sent across the Orontes River to range about the country; but the Turks, noticing this, one day made a sally, fell upon the foragers, and slew great numbers of them before they could recross the river. To make this attack, the Turks had crossed a bridge to the westward of the Crusaders' camp, but instead of trying at first to put a force to guard this bridge, the Crusaders built a floating bridge laid upon boats back of their own camp. Though this made the retreat of the foragers easy, it did not prevent the Turks from sending out strong parties of horsemen across their bridge to the westward to fall by night upon the disorderly Christian camp.

A party of Crusaders at last made an attack [162]

upon the stone bridge, but owing to its strength and the vigorous resistance of the Turkish soldiers, they were unable to destroy it. It was then resolved to build a strong wooden fortification, like a great tower, and to roll it to a position from which it could command the stone bridge and keep the Turks from crossing. If this bridge could be guarded, the besiegers could not readily be attacked, since the ground between them and the Turks was so wet and boggy that the Turkish horsemen could not readily cross it.

The great tower was built and slowly moved into position to command the Turkish bridge. Hardly had it been put in place when a strong force of Turkish horsemen dashed out of the bridge gate, charged upon the newly constructed tower, drove back its guards, and set the tower on fire.

In order to prevent another such attack, the Christians now placed before the bridge a battery of machines for throwing darts and stones, so placed that a heavy fire could be opened upon the bridge. So long as these machines were in action, the Turks remained safely behind their walls, but as soon as the fire slackened the light Turkish cavalry, with sword and spear, swarmed out again like flies, and gave the besiegers no rest.

The reason why these machines were not used to batter down the Turkish defences was simply that they were not powerful enough to make any impression upon the enormous walls, which had been constructed by the Roman Emperor, Justinian.

It was now decided by the Christian leaders that the only way to prevent these sallies from the bridge gate was to block up the bridge by masses of masonry. So, while a heavy fire was directed upon the bridge, workmen carried great stones to the bridge head and succeeded at last in blocking it up so as to prevent the Turkish horsemen from using it.

But as there was still another gate to the westward, the only result of blocking up this bridge gate was to make the Turks go a little longer way round. The attacks of the swift horsemen, who, on their lighter chargers could easily distance the heavy Christian horsemen, still continued and caused great losses among the parties who were forced to cross the bridge of boats northward of the Crusaders' camp in order to get forage for the horses. Many battles and skirmishes took place at this floating bridge of boats, and many lost their lives here owing to the failure of the Crusaders to station a force in front of each of the gates of the city.

All this minor fighting was entirely useless and

brought them no nearer to the capture of Antioch. Meanwhile time was passing, and to the plenty and wastefulness of the early days had succeeded want and bitter famine. The parties sent out for provisions were frequently driven back or slain by Turkish horsemen. Finally eatables became scarce and prices in the camp so high that the rich could hardly buy the simplest food, and the poorer pilgrims lived on the merest scraps or even gnawed upon leather and the soft bark of trees. Sickness followed the famine: thousands died and with difficulty were buried; the knights' horses were reduced from seventy thousand to two thousand; the rainy season came, when the huts and tents could not protect the miserable Crusaders; and every day that passed added to their misery and desolation.

As it never rains but it pours, during this wet and depressing season the Crusaders were made still more despondent by the news that a prince of Denmark, named Sweno, who had set out to join them with a force of fifteen hundred pilgrims and accompanied by his promised bride, Florina, daughter of the Duke of Burgundy, had been attacked just as he encamped, one evening, by an overwhelming force of Turks, and his forces slain to the last man.

This painful news brought despair to many already discouraged, and the faint-hearted began to steal away. Robert of Normandy withdrew to Laodicea, and only came back after much persuasion. A Greek leader named Tactitius, true to his name, pretended to depart for supplies and was no more seen on the field. Peter the Hermit, to whose frenzied preaching the expedition was due, was one of the refugees, but after being overtaken by the great Prince Tancred and soundly scolded by another great Crusader, Bohemund, the preacher was forgiven without punishment—in which he was more fortunate than his companion, who was compelled as a penance to stand all night in the pouring rain at the door of Bohemund's tent. The Duke of Lorraine, one of their strongest leaders, now fell ill, and a council was called to see whether the siege should be given up.

Though almost in despair, it was decided to make one more attempt to procure provisions; and a small army of two thousand horsemen and sixteen thousand foot soldiers went out on a foraging expedition to get provisions. Though they collected a fair store, as they were returning to their camp the alert Turkish forces rushed upon them and took from them what they had so painfully gathered, except

just enough to supply the starving camp for a few days.

Instead of blaming themselves for their wastefulness and lack of foresight, Providence was blamed for their misfortunes as was the way in those times; and this opinion was strengthened by the shock of an earthquake and the appearance of strange lights in the northern skies. A bishop, who was the Pope's legate, ordained a solemn fast of three days for the starving Crusaders, and there followed processions, masses, and psalm-singing, together with the enforcing of strict rules against gambling, drinking, and all other evil doing.

All the camp-followers and women were ordered from the camp, and for the first time there seemed to be some hope that the Christian soldiers would attend strictly to the business of the war. One offending monk received what the Middle Ages considered a fair trial, being made to walk, blindfold, over a piece of ground where pieces of red-hot iron had been placed. As he was unlucky enough to burn his toes, it was believed that Heaven had convicted him of guilt, and he was severely whipped and led in a disgraceful "rogue's march" around the camp.

These things did little to help in taking the city;

but to prove that they were in earnest, the Crusaders now ploughed and planted great patches of ground within sight of the walls, to convince the Turks that they meant to fight it out even if they had to take to farming to support themselves. These things, at all events, restored the Crusaders' courage, and their confidence grew as the weather began to become warmer and supplies to be brought into the camp.

It was soon seen that whatever the Christians devised promptly became known to the Turks, for the camp was full of spies. Among the Syrians from the country round about who came to sell provisions many Turkish spies mingled, and reported every measure taken against the city.

Bohemund, knowing that they could not detect these intruders, determined to scare them away. He ordered that two of the Turkish prisoners should be slain, cut in pieces, and portions of their bodies roasted by his cooks. To all inquirers the cooks were told to say that it was the intention of the Crusaders to devour the bodies of all Turks or spies taken in the camp. The horrified spies one by one stole away, telling the awful story of the Crusaders' cannibalism, and this frightful tale soon spread throughout the East. There still exist old

ballads relating such barbarities, probably without any better foundation than this ghastly trick played by Bohemund upon the spies.

Not long afterward there came an embassy from Egypt representing a faction of the Mohammedans opposed to the party holding Antioch against the Crusaders, and offering an alliance against the common enemy. To entertain these ambassadors the camp was gaily decorated, the soldiers all arrayed in their best, and games, races, and knightly contests took place for their entertainment. These details show the difference between the warfare of the Crusaders and that of the ancients, as well as between those times and ours. It seemed that the Crusaders were glad of anything to distract their attention from the task of overcoming the besieged city; and yet they knew that there was danger of a relieving army appearing unless they could soon finish their task.

Hardly had the merry-makings come to an end when couriers came riding at full speed to the camp to announce that a large force of Turks was marching to relieve their besieged brethren. To meet these the chivalrous knights sent only a small force, who made their way hastily to a narrow pass through which the relieving army must march. This defile

lay between the River Orontes and a large lake, and the ground around it consisted of little hills and valleys among which it was easy to conceal bodies of men.

Bohemund had seen the advantages of this position, and when he was told of the advance of the Turkish army (which consisted of from twelve to twenty-eight thousand men, according to various accounts) the Crusaders gathered all their best mounted and most effective men, but could get together no more than seven hundred knights. Of course the strength of the knights' charges depended upon the condition of their horses; and no more than this small number of men could be provided with steeds strong enough for the night march and the fight that was to follow, although the field was only about seven miles from the city.

Having reached the pass, the knights awaited the dawn, and just at daylight the Turkish lancers were seen advancing, preceded by vast numbers of archers on horseback. As soon as the Turks had entered the narrow pass, the Crusaders formed in five squadrons, with one held in reserve, and charged upon the Turkish van.

Had the attack been made in open ground, the Turks, according to their usual custom, would have

swung in both ends of their long line upon the small body of horsemen and completely surrounded them. In this narrow pass the foremost Turks, driven back by the heavier horsemen charging with their lances in rest, fell back upon the advancing line, threw the army into disorder, and in a few minutes the battle was over and the Turks in full retreat. Over two thousand Turks were drowned in the lake or river, and the seven hundred Christian knights pursued the retreating foe so vigorously that before night they had reached the camp of the vast Turkish army and captured it with all the baggage.

Riding back in triumph, the knights carried with them hundreds of the Turkish warriors' heads, and, instead of being gladdened by the sight of the relieving army, the garrison within the town were informed of its defeat by showers of their countrymen's heads which were shot from the military machines over the walls. Warfare in those days was a grim matter.

It was now February, 1098. In the following month the same tactics were repeated when the Turks from within the city came charging across the bridge into the plain, intending to dash upon the Christian camp. Once more the heavy charge of the knights with their long lances threw the

lighter horsemen of the Turks into disorder, and since the river was at their backs, they could neither retreat nor re-form, and hundreds of them were slain or captured.

There was about this time another fierce battle before the walls in which a party of Genoese, bringing provisions to the Christians, were defeated by the Turks; and then the Turks in turn were attacked by the Crusaders from the camp and routed with great loss as they attempted to retreat again into the city. In fact, so narrow was the Turks' escape that only the coming of night prevented the Christians from forcing their way into the city.

During this fight an incident occurred which shows the bodily strength of some of these powerful knights. A gigantic Turk, who had already slain several of the Christians, charged against the Duke of Lorraine, who, with a single blow, cut the Turk's body off at the waist. This ghastly exploit was witnessed from the walls of the town, and we are told that "the air resounded with the cries and lamentations of the old men, women, and children, who stood on the walls."

These victories, though they made the Christians safer, did little to hasten the siege; and the next work of the Christians seemed likely to turn it into

a mere blockade. They built to the eastward and westward of the town two tall castles, with a strong force to guard each to prevent the attacks of the Turks, and also to shut in that part of the city which up to this time had been unguarded.

Now that everything seemed to smile upon the Crusaders, the timid came flocking back to camp. There was no longer any danger of sallies from the town in force, but now and then small bodies of Turks would charge upon the Crusaders who ventured too far from their camps. Thus they captured and slew a German count who was carelessly amusing himself by playing dice with a noblewoman at the edge of a wood too near the city walls.

One pilgrim whom they took was ordered to beg for ransom from the walls of the city, but instead of begging for release, the hero cried from the battlements, "Be steady and persevere, for all the chiefs of the enemy are fallen, and no one remains to lead them with vigour and understanding!" By this defiance he lost his life.

Now famine began to be felt in the town, while in the Crusaders' camp there was again plenty; but since no steps were taken to force their way into the city, the siege might have lasted for weeks or months longer had it not been for the treachery of one of the leaders within the walls. Having been compelled to give up a store of provisions he had collected for his own family, he secretly sent word to Bohemund offering to admit the besiegers. Bohemund, concealing the treacherous offer, tried to get from his fellow knights the promise that the town should belong to whichever of the Christian princes should bring about its capture. But they maintained that this was contrary to their agreement to act together, and so Bohemund did not reveal the secret of his power to take the city.

News came that a second relieving army was gathering, and again the flight from the camp commenced, causing the princes to make a decree that death should be the penalty for desertion, and that all should take an oath to persevere for four-teen years, if necessary, to take the town. The approach of this Turkish force enabled Bohemund to make terms with the rest. They reluctantly agreed that the town should belong to him who brought about its fall, and word was sent to the traitor within that his offer to give up the stronghold would be accepted.

With every day had arisen suspicion of treachery among the Turks, and this traitor, Pyrrhus, was

one of those called to council in an effort to discover the treason. He boldly advised that all those in charge of the gates should on the next day surrender their offices to others—which he could safely do, since he had made arrangements to give up the town the very night of the council!

A large number of Christian soldiers pretended to march away from the town just at nightfall, while a strong force was secretly brought around to the foot of the tower where Pyrrhus was in command. After some delay, a cord was lowered from the tower, a rope ladder drawn up, and a few of the Christians admitted. Just then the ladder broke, and no other was to be had. But meanwhile those at the foot of the wall succeeded in bursting open a small gate or doorway, and having taken the Turks by surprise, they drove the defenders from the walls and were soon in possession of ten of the towers that commanded them. Before the Turks could gather and resist this small party, the Christians had forced their way to the bridge-gate just to the westward of the Crusaders' camp and thrown it open. The Christian knights who were lying in wait poured into the city, their banners were hoisted on the walls, and in a single day ten thousand of the inhabitants were slain.

Thus fell Antioch, after seven months, by the treachery of one of its defenders. And this is the end of the story of the siege, although shortly afterward the relieving army arrived, surrounded the city, and besieged the Christians in turn. The Crusaders were reduced almost to despair and saved finally only by what they believed to be a miracle. A certain priest dreamed that the lance that pierced the Saviour's side was buried in the Church of St. Peter. Though the papal legate refused to believe the story, under the direction of Bohemund the lance was sought for and found, buried twelve feet in the ground. This relic so excited the enthusiasm of the Christian soldiers that they fought with irresistible courage. The gates were thrown open, and as the clergy upon the walls waved their crosses, singing the psalm, "Let God arise, and let His enemies be scattered!" the Crusaders shouting "God wills it!" marched upon the great host of the Turks and put them to flight, assisted, so the legend ran, by three heavenly knights in glittering armour and white raiment. This was the last attempt to relieve the city of Antioch.

This account shows us that in the science of taking cities, the Crusaders were far inferior to the

Romans of the Empire. Comparing the siege of Jerusalem by Titus with this siege of Antioch might lead one to think that the dates of the two should be reversed, and yet Titus lived in the first century, and Tancred a thousand years later!

But the weapons and the equipment of the Romans were as good as those of the Crusaders, and their learning was greater. When the days of gunpowder began, all was changed; but there were to be five centuries and more of warfare before gunpowder reached a place in military art that put the knights hopelessly into the past.



# THE FOURTH PERIOD

Siege of Orleans, 1428 Siege of Constantinople, 1453 Siege of Rhodes, 1522

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# THE FOURTH PERIOD

HIS is the time of a truly effective firearm. Although at first the new weapon was neither effective nor in widespread use, yet the results of its introduction were great. In the Middle Ages the knight in armour had been almost beyond harm at the hands of the foot soldier. His equipment was very costly, and he may be compared to a great battleship in modern times in that he was sluggish in movement, could be used only for important matters, but once in action was most destructive. When, however, the firearms were really effective, the value of the knight in armour rapidly decreased. Gradually the destructiveness of firearms against the charging bodies of horsemen increased, and the uselessness of wearing armour was evident.

It may be that the downfall of the mediæval knight was caused, or at least hastened, by the results of certain battles in which the free Switzer had shown that a brave body of infantry who would hold their ground with the spear or pike could not be broken by the charges of the armoured cavalrymen. At all events, during all this period of the coming in of gunpowder we see a gradual increase in the value of the foot-soldier and the passing away of the mounted knight. Then, when the feudal lords could no longer rely upon their power in the open field, the siege of castles again began, and gradually cannon gained in effectiveness until they could readily batter down even the strongest masonry.

Again, when cannon could shoot heavy shot from a great distance, the old style of fortification had to be given up, for it had been found that even a slight earthwork formed a better resistance against cannon balls than great masonry walls unsupported by earth embankments. As the range of cannon became greater, armies had to begin their siegeworks farther and farther away from the walls of the place they meant to take; charges could be made only after the guns upon the walls had been silenced by killing the artillerymen or dismounting the cannon. Every approach against a well-fortified place had to be made under cover, and the sort of defence most quickly constructed and most effective against cannon and firearms was the trench-along the edge of which the earth taken out in making the trench was piled for additional protection. Against

## THE FOURTH PERIOD

these protections dug deep down into the earth, was invented the art of vertical firing, that is, of firing high into the air at such an angle as would cause the cannon-ball to drop into the trench. Against this sort of firing the besiegers were forced to construct underground protections, burrows, or bomb-proof enclosures. All this brought about a new science of besieging, based upon the system of trenches dug, one after the other, nearer and nearer to the fortifications. And with each new idea in attack was developed some new way of meeting it on the part of the defenders. All this did away entirely with the old system based upon the gradual approach above ground.

The siege of Orleans shows a mixture of the old and new methods of fighting. Knights in armour, foot-soldiers with spears, artillery of the ancient kinds, and cannon firing iron shot—all appear in the defence and attack of the French city against the English.

HE city of Orleans, like other mediæval towns, was really a great fortress. Around it, besides the wall and the deep moats, had been built thirty-four great towers, enormously thick at the base, where they were almost solid stone, and rising three stories into the air. These, as well as the walls, were loopholed so that archers might shoot upon a besieging army from windows that were narrow on the inside but broadened toward the outside so that they would give those inside a wide view and the arrows would reach a wide space.

The great importance of the fortress to French and to English lay in the fact that it was the last stronghold which still held out against the triumphant English armies. Besides this, it guarded the River Loire, and once the English had passed this river it would not be long before the whole of France would be in their power, since they already held all the north in league with the Burgundians.

Across the river ran a stone bridge, the head of which on the farther side was guarded by towers called Les Tourelles, or as we should say, "The Turrets." On the town side of the bridge were large bastilles, great round towers, powerful fortresses that had been built eleven years before to protect the town against the English Henry V. The people of Orleans had been able to hold their town against the conqueror of Agincourt, for Henry had not the strength to carry on a long siege.

The English, under the command of Lord Salisbury, had taken every town in the neighbourhood, and their forces filled the valley of the Loire both above and below Orleans. When he sought to take this last stronghold of the French, men and women, even children and the clergy, worked with a will to strengthen the fortifications, to provide ammunition, to place upon the walls the cannon and the catapults, for this siege took place before cannon had become so accurate in fire and so long in range that the old-fashioned war machines were driven into disuse.

On October 12, 1428, the English crossed the river and drew up their forces in front of the stone bridge. To prevent too near an approach

to the defences the French had torn down all the neighbouring houses, and also a great convent, which might serve as cover to their foes. The English, however, built new defences on the site of the convent, and soon had placed a battery where it could fire huge stones against the turrets that guarded the bridge-head. Stones, roughly rounded, were in those days quite as commonly, or more commonly used than iron shot.

So passed the first week. Then came a brave assault that lasted for four hours, in which the English tried to capture the first Tourelles. Against the English soldiers fought not only the French men-at-arms, but even the women. They threw missiles down upon the English soldiers, who, in their pointed steel caps and chain armour protected by their shields, came to little harm, but could not force their way into the turrets at the head of the bridge.

No doubt this English attack was meant only to mask their more serious attempt underground, for it was soon discovered that mines had been dug beneath the turrets and it was useless to attempt to hold them. Consequently the French abandoned this part of their defences, moving along the bridge to smaller towers that were built half-way over the

river. At the same time they exploded a mine that had been placed ready beneath two arches of the stone bridge farther back, and by blowing these into the air, they cut off the portion captured by the English. In place of the destroyed arches the French put a wooden drawbridge, so that when they should be driven back by the advances of the English they could raise their drawbridge to prevent their enemies from crossing. But the English commander, Salisbury, did not try to capture the rest of the bridge, being satisfied to hold the head of it and thus to keep the French from using it for making sallies or receiving provisions. The south side of the town had no bridge.

On the day of this assault, Salisbury climbed into the captured towers to view Orleans from this point of vantage. As the commander gazed over the ramparts, and just as one of his officers was saying, "My lord, behold your city!" suddenly a cannon was discharged from the walls, mortally wounding the English commander. It is said that this was a mere chance-shot fired by a boy, who, finding the cannon loaded and ready at the noon hour, touched a match to it and then ran away. In Shakespeare's play, "King Henry VI, Part I," Salisbury is introduced as saying:

Here, through this grate, I count each one, And view the Frenchmen how they fortify:

Let me have your express opinions Where is best place to make our battery next.

While those with him are replying, the shot comes from the wall and Salisbury falls with a wound from which he soon died.

Just afterward in the drama is announced the coming of La Pucelle, the Maid of Orleans. Shakespeare, too, declares the shot was fired by a boy, who is introduced in the play with the French master-gunner, Maître Jean, a real character, noted for his marksmanship. This French gunner is represented in the play as having discovered that the English leader was accustomed to inspect the town from a certain grating and as having trained a cannon upon that loophole. He leaves his son to watch and to fire the piece upon discovering the English.

The death of the English leader caused the siege to slacken until the celebrated English soldiers Talbot and Lord Scales took command and vigorously pressed the siege once more. There followed a vigorous bombardment between besiegers and besieged in which the French master-gunner is said

to have greatly distinguished himself by being able infallibly to shoot down those English leaders who exposed themselves.

Though it was in the early days of cannonading, both fired heavy shot of more than a hundred pounds in weight, but the French gunners were the more skilful. So the siege dragged on with little progress, the forces of the English being increased by reinforcements until they had some forty-five hundred men. The French had about as many, but seemed to be afraid of making any determined attack upon the English troops in spite of the fact that all the French men-at-arms were veteran soldiers. It was not until February, 1429, that any serious fighting took place. This was the so-called "Battle of the Herrings," won by the English. This battle emboldened the English, and they began to strengthen the line of fortresses about the city until they had completely surrounded it and were able to bombard it from every side.

The town, meanwhile, was suffering from famine, and it seemed that surrender could not long be delayed unless aid should arrive from outside. It was when things were in this state that the relieving force under Joan of Arc marched to the city. How many troops she had with her is not

known, but there must have been from seven to twelve thousand—enough, one would think, to have driven the English from their lines even without the miraculous aid of Joan.

She had gathered her forces at the town of Blois, which is a few miles down stream on the same river as Orleans, and here many waggons were loaded with provisions and followed in the train of her army, to relieve the starving city.

At last all was ready and the Maid, banner in hand, led her army out of Blois, singing a solemn chant in a grand chorus as if the march were a religious procession. Two nights they camped in the fields, and on the third day came in sight of the walls and towers of the besieged city. She had directed that the march should be directly to Orleans itself, but the officers thought it wiser to march on the southern side of the Loire River, so that they might be safer from the large part of the English army that was on the northern side.

Thus they saw before them, when they halted, the tall siege-towers of the English army around the head of the fortified bridge, while beyond the river were the walls and towers of Orleans, and still beyond were others of the sixty fortresses that the English had erected in circuit about the town. Joan

no doubt saw at a glance that no one of these towers could hold many English, for she advised that the nearest should be attacked, so that the French could ford the river and at once enter Orleans.

Again the officers overruled the Maid, and the forces were marched eastward along the river four miles to a ford where were some small islands. These islands were used as the landing-place for provisions sent to Orleans, and to them boats came to bring the supplies left there. Dunois, the French commander of Orleans, had come out to meet Joan and her forces, and while he was explaining that the wind prevented the arrival of the Orleans boats, Joan predicted that the wind would change, and that the boats would come and return in safety. This all happened. The supplies were carried to the broken bridge, and Joan and her party were ferried to the north side. When darkness came, they found their way to Orleans, and were admitted amid wildest rejoicings.

Lighted by torches, a great crowd thronged around to see Joan and her knights, who was so pressed upon that one of the torches set fire to Joan's sacred banner in her very hand. She went straight to the cathedral to give thanks for her successful entry, and then sought rest with her attend-

ants in the home of the Duke of Orleans's treasurer.

Joan's arrival brought hope and food. Both gave new courage to the hungry and the fearful. Dunois, the commander, said that after her coming the French soldiers no longer feared the English, but were eager to attack. Even before Joan gave the word, four hundred French charged out and drove back a strong force of the English, but this led to nothing further. The officers were not willing that Joan should lead an attack.

The Maid seemed to hope the English would yield without fighting. She sent messengers and letters, but these were scorned. She went out upon the bridge, and summoned Glansdale, who commanded the English in the captured tower, to surrender. Though she was laughed at and insulted, none shot at her. When her summons was scorned, she told the English that they would soon be driven back but that Glansdale would not go with them.

While Joan was encouraging the French, Dunois had gone to Blois for the rest of the relieving army, and arrived in time to persuade them to follow him to Orleans—a step which most of those in command at Blois opposed.

On the second of May, Joan led a great throng [192]

from the city and examined the English siegetowers and forts; and two days later she rode boldly through the English lines to meet Dunois and the coming troops, and then marched back with them. The English, though the stronger force, did not attack; perhaps the soldiers were too superstitious to face an army led by a white-robed "sorceress," for such they called her. So the reinforcements came safely to Orleans.

Joan knew that the English, too, were expecting aid. Sir John Fastolfe was on the march with soldiers and supplies, and she besought Dunois to give her instant word of his arrival. But he failed, and one day she was sleeping when she heard cannon firing. She sprang to her feet, was armed by the women, and receiving her banner through the window spurred at full speed toward the fighting. On the way she passed men carrying wounded, and was full of grief and pity. But she rode bravely to the field of battle, and gave orders that the French should see that no aid came from the other English towers to the one attacked—the tower of St. Loup.

On foot and banner in hand she encouraged the French, and despite an attempt to reinforce the English, the tower of St. Loup was taken, and its defenders captured or slain.

When returning in triumph she told the rejoicing people that in five days' time they would be freed of the enemy, not one Englishman being left before the walls; and they believed her. That night the bells were rung in sign of their joy over the first success.

Next day Joan tied to an arrow shot into the English lines a letter saying this was her third and last demand that they should depart; but no answering letter came.

The day after this success was a church-day, and Joan passed the time in religious observances. On the following day the French were led to attack the English position at the Bastille or Tower of the Augustinians. This tower was most important as it stood farther down the river than the bridge, and was near a little island which made it easy to cross to the towers on the opposite side of the river. If the Augustinian tower should be taken, the English would be left in two separate bodies with a river between and no crossing place.

The French crossed the river and landed on an island called St. Aignan. The English had not thought this worth guarding. But when the French had been carried in their boats to this island, and were gathered in force, they found themselves so

near the other shore that two boats put together made a bridge over which they could advance to the attack on the Tower of the Augustinians. But first they must take a smaller tower—St. Jean le Blanc,—the very one Joan had wished to capture when they first arrived from Blois. This tower the English abandoned, setting it afire, and retreated to the stronger fort.

After advancing boldly the French became frightened, fearing that a strong force of English would come from a neighbouring fort, and retreated toward the river, Joan and her own company of knights following slowly. When the English came out after them, Joan's own party charged as the Maid, waving her banner, cried "Follow me!" This sudden attack amazed the English, the retreating French came back, and the English were glad to return to their tower and fortifications. But the Maid and her knights followed closely, she planted her banner on the barricade, and a hand-to-hand struggle took place. Soon a breach was made in the barricade in the following manner.

Joan's Steward, D'Aulon, was among those left to guard the river passage. As he and others stood there a "big, well-armed man-at-arms" came by. A Spanish soldier told this fellow he ought to help

guard the passage; whereupon the other said he would not do it. Then the Spaniard reproached the other, each began to "dare" the other, and finally they joined hands and rode toward the English barricade—to see which would go farthest. Reaching the palisades, a big English knight met them at every point, and kept them back. Seeing this D'Aulon pointed this Englishman out to Jean, the master-gunner. Now, Jean's cannon or culverin was on wheels, and probably had been taken to aid in the attack; for it is said that he shot the English knight, and thus enabled the two soldiers (French and Spanish) to break through the barricade. The rest of the French followed, and soon after won the Fort or Tower of the Augustinians—the next to strongest tower held by the besiegers.

Joyfully the French encamped that night in and around the stronghold while Joan returned to her lodging in the city. Though only three thousand strong, they had taken three hundred prisoners, recovered two hundred French prisoners, and slain a third of the English in the fortress. This was Joan's second victory, and the only strong position that remained was that before the bridge over the Loire—and this was the strongest of all.

It was too late to attack on that day, and the

French officers were not anxious to fight at all, thinking that they could now wait for aid. Indeed, an officer came from their council to tell Joan of this resolve, and she replied: "You have been to your council and I have been to mine. And, believe me, the counsel of God will be accomplished while yours will perish." Then Joan warned her priest or almoner to rise early, saying: "We shall have a hard day's work. Keep close to me, I shall have much to do; more and greater than I have ever had. I shall be wounded, my blood will flow from a wound higher than my breast."

A letter exists, dated fifteen days earlier than the attack on the bridge towers, in which a French lord of Lyons mentions this prophecy as having been made, and Joan's priest Pasquerel swore to her making it to him again on the night before the attack.

When early in the morning of Saturday, May 7th, Joan rode to the gate, she found it had been ordered closed, and passage forbidden. Nevertheless, saying, "You are doing wrong, and whether you wish it or not, my soldiers shall pass," she insisted upon going forth to the attack, and the gate was opened.

Riding to the French outposts, the attack upon

the great bridge fortress began about six or seven o'clock, and the main body of the French came to the assistance of Joan and her knights.

As this was the main position of the English, the struggle was most desperate. From the walls, the people of Orleans watched the struggle, and the artillery lent what aid it could, sending stones and iron shot against the towers. The English had now brought their whole strength to this point, and there was desperate fighting with spear, sword, lance, and bow. Both sides lost heavily. Again and again the French reached the ditch, crossed, put up ladders, and were driven back.

For six hours or more the fierce fighting lasted, Joan in the very forefront, and urging on the menat-arms.

At length she helped to raise a long scaling ladder against the tower, when a crossbowman, firing down upon her from the parapet, sent a bolt deep into her shoulder. She fell, and was hastily carried to the rear, while her comrades struggled on. Great was the triumph of the English over the "death" of the "sorceress," and as great the discouragement of the French, who struggled on with small hope of success.

Joan meanwhile wept with pain and grief, but [198]



Joan of Arc Wounded before Orleans

soon became quieter. She refused to have her wound "charmed," saying it would be a sin. Oil and lard were applied, and the bleeding stopped. But in her absence the attack went badly. The French were about to retire when Joan remounted her horse and begged for a little delay. She went into a vineyard, prayed, and then came forward to the attack bearing her banner. She rode to the very edge of the trench.

Her reappearance, apparently from death itself, terrified the English and redoubled the courage of her own soldiers. The French again rushed forward at all points, and soon the outer defences were taken, and then the French rushed to the towers. It was now about eight in the evening, and the English, in trying to retreat from the first tower to the second, fell from a broken bridge, that had been struck by a ball from the French artillery. Their leader, Glansdale, was in full armour, and went to the bottom of the river with many of his followers.

Seeing the retreat, the French attacked the towers from the stone bridge that connected them with Orleans, and in a panic the English yielded everywhere, and their last stronghold was in the hands of the French.

This Joan had predicted even while her forces seemed to make no headway, saying: "When you see the wind drive my banner toward the fort, it will be yours." After the victory the French entered Orleans by the stone bridge; and this also the Maid had foretold when she set forth that morning.

These prophecies are historic.

All Orleans thronged to meet the victors, and together the rejoicing soldiers and citizens went in grand procession to the Cathedral, while the church bells rang, and kept on ringing through the night, and the joyful people betook themselves to giving thanks and making merry with bonfires, dancing, and songs.

On the following day, Sunday, Joan was asked whether she would fight; but instead, when the armies, both French and English, were drawn up facing one another, she asked that the priests should celebrate the mass. When this was done, she demanded whether "the English have their faces or their backs turned to us?" The English were seen to be turned in sullen retreat, and Joan said: "Let them depart, in God's name."

Thus on May 8, 1429, after ten days of the Maid's presence, ended the siege begun October 12, 1428.

It was a marvellous achievement, and from it we may learn the power that comes in warfare to those who fight with belief in their leader, their cause, and themselves. The main strength of an army lies in its soul; and it was the souls of the French that followed the Peasant Martyr to victory.

If we learn this lesson from the siege of Orleans, we shall be fully warranted in including it among the great sieges of the world, though the science displayed on either side was far from unusual or remarkable.

# THE FALL OF CONSTANTINOPLE, 1453

E have already told the story of a successful attempt to hold Constantinople against the Eastern warriors in the year 717, when by the use of Greek fire the enemy's ships were burned and an attempt upon the sea wall of the city, by far the weakest side, was prevented.

Over seven centuries later there came another attack against the great stronghold, which succeeded in wresting the city from the hands of the Christians. This was one of the most important sieges in the world's history, but it is not one that needs telling at great length, since it is only the story of the success of an overwhelming force against a few helpless and abandoned men. It was great because of its results on the world.

The leader of this siege was Mohammed II, a youthful warrior who was only twenty-three at the time of the taking of the city. Having learned something of its defenceless condition, Mohammed sent a force to build siegeworks just outside of Constan-

# THE FALL OF CONSTANTINOPLE

tinople. At once envoys from the city made formal protest against these hostile operations, but the protest was not repeated, since Mohammed sent back the messengers with the threat to flay any others who came from the city. Then he leisurely completed the building of his fortress, which in three months was fully completed and armed with heavy artillery.

All being ready, Mohammed declared war against the Emperor Constantine, who then commanded a petty garrison of only six hundred Greek soldiers, far too few to extend even a fringe of armed men along the massive walls.

Constantine had little hope of securing help, but having sent a despairing appeal for aid, he finally mustered some nine thousand men, and in April, 1453, with this little force he confronted the Turkish expedition, which included a quarter of a million men and a naval force of four hundred and twenty vessels.

A bombardment followed in which on both sides were employed not only ancient but modern artillery. The walls were subjected at the same time to the blows of great battering-rams, to stones flung from catapults, and to shot and shell from the heaviest cannon that up to that time had been con-

structed. These cannon had been drawn to the siege on enormous platforms dragged by long trains of yoked oxen.

Not only did the Turks attack the city on the side of the sea, but they carried their lighter craft across the land into the city's harbours on the narrow strait to the northward, thus assaulting the city upon all three sides.

For fifty-three days the city held out, but on May 29th a general attack was made along the whole line, and the small garrison fell, bravely trying to defend the gates. The Emperor Constantine was killed, and the hordes of Turks came rushing into the city streets. The despairing people gathered in the great Church of St. Sophia, where it had been predicted that an armed angel from heaven would descend to protect the Christians against the infidels. Nearly a thousand people were slain or sold into slavery; the great city which contained the uncounted wealth piled up through the long ages of its Imperial history became for three horrible days a scene of murder, pillage, riot, and confusion, and the Turkish Crescent was hoisted over the walls, there to remain until our own time.

The final assault by the Turks is thus told by Gibbon, in his picturesque and sonorous style:

# THE FALL OF CONSTANTINOPLE

The preceding night had been strenuously employed; the troops, the cannons, and the fascines, were advanced to the edge of the ditch, which, in many parts, presented a smooth and level passage to the breach, and his four-score galleys almost touched with the prows and their scaling-ladders, the less defensible walls of the harbour. . . .

The foremost ranks consisted of the refuse of the host, a voluntary crowd who fought without order or command; of the feebleness of age or childhood, of peasants and vagrants, and of all who had joined the camp in the blind hope of plunder and martyrdom. The common impulse drove them onward to the wall; the most audacious to climb were instantly precipitated; and not a dart, not a bullet, of the Christians, was idly wasted on the accumulated throng. But their strength and ammunition were exhausted in this laborious defence; the ditch was filled with the bodies of the slain; they supported the footsteps of their companions; and of this devoted vanguard the death was more serviceable than the life.

Under their respective bashaws, the troops of Anatolia and Romania were successively led to the charge; their progress was various and doubtful; but, after a conflict of two hours, the Greeks still maintained and improved their advantage; and the voice of the emperor was heard, encouraging his soldiers to achieve, by a last effort, the deliverance of their country. In that fatal moment the Janizaries arose, fresh, vigorous, and invincible. The sultan himself on horseback, with an iron mace in his hand, was the spectator and judge of their valour; he was surrounded by ten thousand of his domestic troops, whom he

reserved for the decisive occasion; and the tide of battle was directed and impelled by his voice and eye.

From the lines, the galleys, and the bridge, the Ottoman artillery thundered on all sides; and the camp and city, the Greeks and the Turks, were involved in a cloud of smoke, which could only be dispelled by the final deliverance or destruction of the Roman empire. The single combats of the heroes of history or fable amuse our fancy and engage our affections; the skilful evolutions of war may inform the mind, and improve a necessary, though pernicious, science. But in the uniform and odious pictures of a general assault, all is blood, and horror, and confusion.

The immediate loss of Constantinople may be ascribed to the bullet or arrow which pierced the gauntlet of John Justiniani. The sight of his blood and the exquisite pain appalled the courage of the chief, whose arms and counsels were the firmest rampart of the city. As he withdrew from his station in quest of a surgeon, his flight was perceived and stopped by the indefatigable emperor. "Your wound," exclaimed Palæologus, "is slight; the danger is pressing; your presence is necessary; and whither will you retire?" "I will retire," said the trembling Genoese, "by the same road which God has opened to the Turks"; and at these words he hastily passed through one of the breaches of the inner wall.

By this pusillanimous act he stained the honours of a military life; and the few day which the leader survived in Galata, or the Isle of Chios, were imbittered by his own and the public reproach. His example was imitated by the greatest part of the Latin auxiliaries, and the de-

# THE FALL OF CONSTANTINOPLE

fence began to slacken when the attack was pressed with redoubled vigour. The number of the Ottomans was fifty, perhaps a hundred, times superior to that of the Christians; the double walls were reduced by the cannon to a heap of ruins: in a circuit of several miles, some places must be found more easy of access, or more feebly guarded; and if the besiegers could penetrate in a single point, the whole city was irrecoverably lost.

The first who deserved the sultan's reward was Hassan the Janizary, of gigantic stature and strength. With his cimeter in one hand and his buckler in the other, he ascended the outward fortification; of the thirty Janizaries who were emulous of his valour, eighteen perished in the bold adventure. Hassan and his twelve companions had reached the summit; the giant was precipitated from the rampart; he rose on one knee, and was again oppressed by a shower of darts and stones.

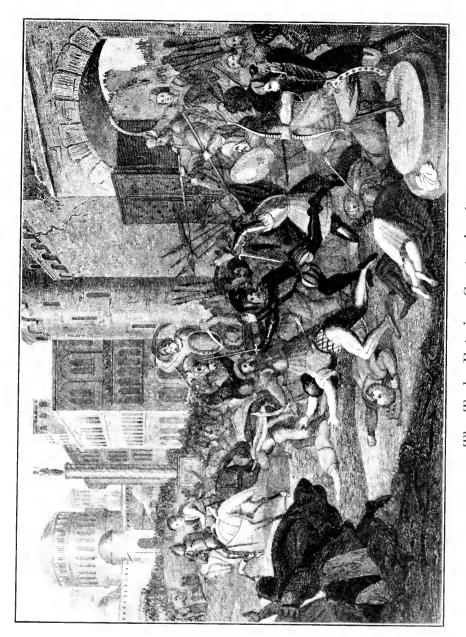
But his success had proved that the achievement was possible; the walls and towers were instantly covered with a swarm of Turks; and the Greeks, now driven from the vantage ground, were overwhelmed by increasing multitudes.

Amidst these multitudes the emperor, who accomplished all the duties of a general and a soldier, was long seen and finally lost. The nobles who fought round his person sustained, till their last breath, the honourable names of Palæologus and Cantacuzene: his mournful exclamation was heard, "Cannot there be found a Christian to cut off my head?" and his last fear was that of falling alive into the hands of the infidels. The prudent despair of Constantine cast away the purple; amidst the tumult he fell

by an unknown hand, and his body was buried under a mountain of the slain.

After his death, resistance and order were no more; the Greeks fled toward the city; and many were pressed and stifled in the narrow pass of the gate of St. Romanus. The victorious Turks rushed through the breaches of the inner wall; and as they advanced into the streets, they were soon joined by their brethren, who had forced the gate Phenar on the side of the harbour. In the first heat of the pursuit, about two thousand Christians were put to the sword; but avarice soon prevailed over cruelty; and the victors acknowledged that they should immediately have given quarter if the valour of the emperor and his chosen bands had not prepared them for a similar opposition in every part of the capital. It was thus, after a siege of fifty-three days, that Constantinople was irretrievably subdued by the arms of Mohamed II. Her empire only had been subverted by the Latins; her religion was trampled in the dust by the Moslem conquerors.

There is in the next siege, that of the Island of Rhodes, an increase in the part played by cannon-fire. This had so proved its value that the strong walls of Rhodes were unable to resist the shot poured upon them. But though the walls were broken through again and again, the breaches were so bravely defended by the Knights of St. John that they won immortal glory in resisting the enormous forces of the Turks.



The Turks Entering Constantinople



# THE FALL OF CONSTANTINOPLE

Gunpowder appears also in the mines that were prepared to blow up the walls when these should be attacked by the enemy. The important points in the city became the targets for the enemy's guns, and, in general, we see in this siege the beginning of the days when gunpowder plays the chief part in the taking of cities.

# THE SIEGE OF RHODES, 1522

Mediterranean, is a chain of large islands extending southwestward into the Mediterranean Sea. The largest of these is the Island of Crete; then come two smaller islands nearer the shore, and, finally, the Island of Rhodes, just about forty-five miles long and half as broad, lying nearest the coast of Asia Minor.

As it possesses two fine harbours on the eastward side and lies at the mouth of the Ægean Sea right in the path of ships on voyages from Turkey and Greece to the East, and as, in the old days, this was one of the greatest trade-routes, constantly full of shipping, the Island of Rhodes has always been a most important naval-station and trade-mart. The climate is fine and sunshiny, the land is fertile, and the island has always been populous, and, occasionally, a bone of contention between rival nations.

Either across or at the side of one of its harbours stood the great "Colossus of Rhodes," one of the Seven Wonders of the world. This stood until a

## THE SIEGE OF RHODES

little more than two centuries before Christ, when an earthquake caused its fall and destruction, leaving great brazen fragments lying upon the shore in the waters of the harbour until 656 A.D., when the Saracens, having taken the city, sold the old metal to an Eastern dealer, who loaded a train of nine hundred camels in order to convey the broken pieces from the desert.

The city has had many sieges. Demetrius Poliorcetes, whose second name means "city-taker," failed to keep up his reputation here, for though in 304 B.C. he succeeded in making breaches in the walls, his men were driven away. In 42 B.C. the great Roman, Cassius, took the place and plundered it. In the Middle Ages, just at the beginning of the fourteenth century, the island, which was then in the possession of the Greek Emperor Emmanuel, ruler of Constantinople, was granted to the Knights of St. John, or the Knights-Hospitalers.

The story of these knights is one of the most romantic in history, but would fill many volumes. The order began in 1023, when a little hospital was established in Jerusalem for the benefit of pilgrims to the Holy City. After the Crusaders had taken Jerusalem, their wounded were cared for by the attendants of this little charity, and this caused the

Hospitalers to be renowned and favoured throughout Christendom. Large sums were sent for their support, and rich men, dying, left money and lands for their benefit. The order grew so rich and its property was so widespread that officers had to be appointed all over Europe to take care of the great estates belonging to the society. Their great rivals were the Knights-Templars, with whom they at times came even to open battle.

While Rhodes was in their keeping, the city of Smyrna, which they had conquered and held as an outpost, was taken by the Tartar leader, Timour, in 1401. But the knights, when he had withdrawn his hordes, still remained in possession of Rhodes. There was a great wall about the city, which stood at the northeast extremity of the island. Within the walls was their Church of St. John, the palace of their Grand Master, which was really the citadel of the fortress, and also the separate quarters of the town set apart to the knights of different nations, for each country had its branch of the order.

In 1480 Mohammed II came with an enormous force against the island and besieged it by land and sea with heavy artillery, for Mohammed possessed enormous cannon and very skilful artillerymen.

But, although the siege was vigorously pressed,

the inhabitants had maintained their fame for bravery and skill in fight, and the Turks were compelled to give up the siege and retire—which added greatly to the fame of the stronghold and to that of the order who held it.

In the year 1522 there came an election to fill the office of Grand Master of the order, and after some fierce rivalry a French knight, Villiers de l'Isle Adam, was elected, defeating another prominent knight named D'Amiral. At this time the Turks were still warring against the Christians in the East, and, after a long siege, had just succeeded in capturing the noted city Belgrade, one of the strongest and best fortified of Servia, and the knights had every reason to expect that the successful Turkish general would soon bring his forces against them.

It was partly for this reason that they had been so deeply interested in the selection of the Grand Master, L'Isle Adam, aware that he might have to provide for the defence of the island against the conqueror of Belgrade, Solyman II, sailed at once from France for Rhodes.

His voyage was most adventurous. At first his ship caught fire, and the flames were extinguished only after the most desperate efforts of his crew.

A terrible thunderstorm overtook them shortly afterward, and the ship was struck by lightning, killing nine of the crew and melting L'Isle's sword as it hung at his side, but without injuring the Grand Master. It was still the custom to coast along the shores, and it was fortunate that the Master of the Order did so, for he was told at one of the ports that the noted pirate Curtoglu was cruising about in the hope of capturing him before he could reach the island. By sailing at night instead of by day, the pirate was eluded, and L'Isle landed safely in the harbour of Rhodes and set himself at once to prepare for the coming of the Turks.

It is said that the father of Solyman II, addressing his son from his death-bed, had declared to him: "You will be a great and powerful monarch, provided you take Belgrade and drive the knights from Rhodes." Probably this was known; for though Solyman sent messages to the knights, promising them friendship and offering to "cultivate their favour," L'Isle Adam sent no reply except to call the attention of the Turks to the fact that they had put in command of the Turkish fleet the pirate Curtoglu, who, after the failure of his attempt to seize the Grand Master, had been defeated by a ship of the Rhodians and forced to give

up some of his plunder. Still the Sultan, Solyman, pretended to be friendly, and humbly desired that an ambassador might be sent to him to represent the island, but L'Isle Adam refused, knowing too well what would be done to the ambassador. His good sense was proved shortly afterward when he learned that the Turks had captured a Rhodian sailor, and by torturing him had extracted all the information that he could give about the defences of the island.

In order to strengthen themselves as much as possible, the knights despatched swift ships to Europe and sent messages begging help from France, Germany, and other countries. But at this time European wars kept all the monarchs busy, and the only help that came to the knights was the arrival of five hundred Cretans—archers with the crossbow and most famed for their skill. In addition to these, there came in the same vessel a certain Venetian engineer, Gabriel Martinigo, known throughout Christendom for his skill in fortification and military matters.

Hardly had he become acquainted with them than his admiration for the knights led Martinigo to ask to become one of the order. He was eagerly welcomed to their number, and at once appointed to high office and given full charge of the preparations to resist the Turks' attack. With the eye of a master, he examined the ramparts. He built new works at what he considered the weaker points, made openings for guns to sweep positions that needed defence, and dug great mines under such parts of the walls as seemed to invite assault by the Turks. Not only did he strengthen the outer fortifications, but caused strong barricades to be built here and there in the streets of the town so that even if the walls could be taken the defence of the place might be kept up as long as possible.

When this engineer declared all was ready, the garrison were ordered to parade in the public square and all sworn to defend the city to the last. To make sure that their garrison was supplied with arms, each soldier also made oath that his equipment was his own and would be ready when needed. The next question was as to ammunition and supplies. Several of the leaders, one of them being D'Amiral, who had been defeated in his attempts to be elected Grand Master, were sent to find out exactly how much powder and shot and what supplies the knights could rely upon, and they assured the Grand Master that both food and ammunition were ample for their needs.

All was now ready for the Turks' attack. But D'Amiral and some of the knights who favoured him asked permission to make a brief visit to a neighbouring island on some business of their own. Naturally, the Grand Master refused; whereupon the rebellious knights seized a vessel and set sail secretly. In spite of their dangerous position, L'Isle Adam showed the true qualities of a leader, for, calling a meeting of his knights, he at once demanded the expulsion and disgrace of these men who had deserted their posts at a time when the greatest dangers threatened. He was loyally supported, and the vote was passed. This had the effect of shaming D'Amiral and his followers, who returned and upon their knees begged the Grand Master's forgiveness. There was no further sign of disloyalty.

The number of knights themselves was about six hundred; of soldiers, or men-at-arms, some forty-five hundred, with enough volunteers from the town, sailors from the vessels, and peasants from the country round about, to bring up the total to six or seven thousand men. All these soldiers and labourers were carefully trained, assigned to the different towers and points of danger, while four bodies of knights were held in reserve so that they might lend aid wherever it was from time to time

needed. L'Isle Adam himself retained a small bodyguard like a staff of officers, and took direction of the entire defence.

As soon as it was learned from spies and fugitives that the Turks were actually arraying their forces, a grand service was held in the Church of St. John under the direction of two archbishops, and the church was filled with knights in their sombre robes marked with the white Maltese cross, and with the sturdy men-at-arms, while the prelates prayed for the success of the Christians against the infidels.

The force of the Turks is believed to have consisted of about two hundred thousand men, and their naval force included between five and seven hundred galleys, according to various accounts.

On June 26, 1522, just as the knights and inhabitants were celebrating the Octave of the Feast of St. John by a grand procession, a cry arose from one of the outposts on a lofty hill that the Turkish fleet was in sight. Despite the approach of the dreaded enemy, the Grand Master sternly forbade the knights to change the day's proceedings, and as the infidels came stealing toward the city the knights marched in their procession toward the Church of St. John, and there held services as if in times of peace. This religious office being per-

formed, the men ran to their stations, the great gates of the city were shut and barricaded, the bridges across the deep ditches were raised, and from all the towers the banners of the Knights of St. John were flung out in defiance of the foe.

Along the lofty walls gathered soldiers and citizens to look down upon the great galleys of their enemies, and it is well said by Porter, the historian of the knights, that among that throng there must have been many an old man who remembered well the great siege of forty-two years before, when the Turks had come as eagerly, only to meet with a shameful repulse. If they recalled their victory with pride, yet they could not help seeing that this attack was to be in every way more difficult to meet. Solyman was a noted general, and up to this time had never been defeated. His success in taking the city of Belgrade was still fresh in men's minds. There was little to give courage to the brave soldiers on the walls, as they watched the arrival and disembarkation of the Turkish forces.

At night, however, there came a crumb of comfort. A deserter had escaped by swimming from one of the Turkish vessels, and on being brought before the Grand Master he declared that there was great disaffection in the fleet. He said that the Turks, too,

remembered the disastrous siege in the last generation, and that they feared to attack a city so strongly defended by men whose bravery and devotion was known throughout the world. But there was no sign of slackness in the besiegers' way of going about their work. With the Turks were some fifty or sixty thousand peasants and labourers who had been brought to do the heavy work against the fortifications. These men were set at once to digging trenches and erecting ramparts, placing the Turks' cannon where they would best command the city walls, and putting up shelters for the Turkish soldiers.

At first the knights now and then sent out strong forces to make attacks upon these labourers, but they soon saw that the Turks cared little how many of these poor peasants were slain. They made no attempt to protect them, and simply sent new men to take the places of those that had fallen. Meanwhile, though the forces sent out from the town were generally successful, now and then they lost a few men; and this they could not afford, since the Turks had twenty men to their one, without counting the labourers who were digging the trenches.

When the Turks had their guns in position, a heavy cannonade began and was continued for days

at a time without doing any great damage to the strong fortifications. As the knights were still well provisioned, and there was no sign that the walls would give way, they were content to sit within, simply remaining on guard, and to allow the Turks to hurl cannon-balls into the town. This went on until the Sultan, who had not yet come before Rhodes, became impatient and arrived with reinforcements, determined to push the siege vigorously.

The only incident of this early part of the siege that is interesting is the discovery of a plot to burn the city. A certain Turkish woman, a slave, had formed a conspiracy with other Turkish slaves to set fire to Rhodes in several places at once, hoping either to destroy it or to aid her countrymen, by the confusion, to make an assault upon the walls. Fortunately for the knights, one of the women revealed the plot; the poor slaves were subjected to tortures and confessed, with the exception of the ringleader, who died in silence. She was barbarously cut to pieces and her body shown upon the ramparts, to convince the Turks that the plot had failed. Undoubtedly it was necessary to let the besiegers know that this plot was discovered, for there were plenty of signs that somebody within

the city was giving information to the Turkish generals.

One sign of the accurate information given to the Turks was their directing the fire of their guns upon the bell-tower which stood on a lofty place in the city. This was used as a watch-tower for the Knights of St. John, and from it they could observe and prepare against the Turkish attacks. But hardly had they organised this service, when the heavy fire of Turkish guns was turned upon their watch-tower. It was battered to pieces and fell. Although the Rhodians served their artillery well, they could not do much damage to the Turkish earthworks, and, as has been said, they could not afford to make attacks upon the besiegers, since the losses more than offset any success they gained.

When the tower had fallen and they had ceased to take prisoners by sorties, the knights found themselves without information as to the Turks' proceedings; so certain Rhodian sailors volunteered to dress themselves as Turks and to make an expedition in search of information. There was no great danger of detection, since men were chosen who could speak the Turkish language.

Stealing out of the harbour in a light boat, these sailors coasted cautiously along until they succeed-

ed in capturing and bringing back to the town two unfortunate Moslems. These prisoners were taken to the top of one of the highest towers and told that if they should show any hesitation in telling all they knew they would at once be hurled from the battlements. Under this persuasion the men only too eagerly gave an account of all Solyman's forces and even a list of his artillery. From their account we can see that the Turks were well supplied with cannon, ranging from six brass guns of about ten inches calibre to a dozen brass mortars meant to discharge—what was entirely new in those days—hollow brass balls filled with "artificial fire." These are said to be the first explosive shells ever fired from cannon. But the seventy or eighty cannon had so far done but little execution, and the shells had failed so entirely that only eight of them were used.

When the Sultan himself arrived, he saw at once that to do any damage to the town his artillery must be brought nearer and raised higher. Consequently the Turks promptly began the construction of two great mounds, or "cavaliers," as they were then called, at two different points of attack. These mounds were built of bags filled with earth strengthened with timber, and were only completed after the knights had slain many of the Turkish forces.

When the guns had thus been raised, they became more effective, and one of the projecting bastions upon the works, one that covered an older wall, was battered to pieces.

But the triumph of the Turks was short, for the old rampart behind the new wall resisted them. The Turkish fire, however, had become so destructive that after several weeks of bombarding the wall had given way in a number of places. But no sooner was a breach formed than the Turks would discover, behind that they had battered down, a new wall guarded by a deep ditch.

The Turkish Sultan, finding his artillery too weak to destroy the walls fast enough, now set his men at work to dig below the walls for the purpose of undermining them.

The Venetian engineer, Martinigo, did his best to discover the Turkish mines, using for the purpose the stretched head of a drum, which he placed upon the ground as a sounding-board—just as the old copper-worker used the brazen shield. Though some of the mines were discovered, one of them was completed, and when its supports were burned, a great part of the bastion known as "St. Mary's" fell in, leaving a wide breach.

But here came, to repulse the attack that followed

the falling of the wall, the Grand Master and his bodies of knights held in reserve. The Turkish hordes ran into the opening only to be hewed down by the powerful knights in armour; and although the Turkish general urged his men to the attack and mercilessly cut down those that retreated, and although the attack was again and again renewed, the Turks could not force their way into the city.

Such assaults were repeated again and again, as new breaches were made in the walls. But no sooner was a Turkish attack ready than alarm-bells would ring out in the city, and the garrison, armed with swords, small arms, Greek fire, boiling pitch, and even heavy stones, would charge so boldly against the Turkish columns that they were always repulsed. Even at one time when a general assault was made by the Turkish forces against every part of the wall simultaneously, the small garrison fought so bravely as to drive back the Turkish warriors even after they had gained a footing on top of the walls.

This last grand assault was watched by the Sultan in person from the top of a lofty scaffolding upon which he had established his throne; and in his anger over the defeat of this grand effort, he caused several of his generals to be put to death; and to pun-

ish the pirate, Curtoglu, for having failed to send his forces in a naval attack at the moment of the grand assault, the Sultan caused him to be stretched out upon the deck of his galley, bastinadoed—that is, cruelly whipped on the soles of his feet—and then degraded from his command and expelled from the navy.

So much gunpowder had been burned on both sides that the supplies began to fail. The Turks sent their ships for more, but the knights could not renew their supply. They found some saltpetre within the town, and manufactured what gunpowder they could. It may be that the shortness of ammunition came about because of the mines that had used so great a quantity; but it was believed by many in the town that D'Amiral and the others who had reported before the siege that there was powder in plenty had been treacherous. Fear of treachery is always common in long sieges, but here it was confirmed when a Jewish physician was caught shooting a message tied to an arrow into the Turkish camp. His guilt having been proved, he was put to death, and not long afterward D'Amiral's servant, caught on the walls at a lonely place with a bow in his hand, was accused of the same treachery, and, when tortured, claimed that his master had sent

messages to the Turks. On this testimony and that of a priest who claimed to have seen a message sent (but had certainly never told of it before), D'Amiral was executed, though probably innocent.

Learning of the distress in the town, the Sultan pressed the attack most vigorously, and as breaches were wider and defenders fewer, the danger of capture daily increased. At length the Turks succeeded in keeping possession of the top of the wall in two places, still without being able to force a way into the town. The Sultan had lost ten thousand soldiers each month for half a year, and fearing help would come from Europe, he now sent letters, by arrowmail, inviting a surrender.

The Grand Master refused even to treat with the Sultan, and threatened to put to death any messenger who should enter the town. It was the wish of the Knights of St. John to perish in the ruins rather than surrender. But the townspeople besought the knights to make terms while it was possible to save the women and children. The Venetian engineer, Martinigo, was forced when questioned to confess that the town could not be held, since they had not men enough to repair the walls, nor had they enough artillery to defend the breaches that had been made. The Grand Master, seeing that he

would no longer be supported by the townspeople, then tried to secure from the Sultan the right to march out carrying their property, five years' exemption from payment of taxes, and an agreement that the churches should not be profaned nor the town pillaged.

The Turks agreed, but before the matter was finally settled a fight broke out between the Rhodians and the Turks that caused a renewal of hostilities. There was one more grand assault at a place where the walls had been broken and a new wall built within. The first day of fighting at this point resulted in the defeat of the besiegers, but next day the breach was taken and held by the Turkish troops.

Once more the townspeople insisted that peace should be made before it was too late to save their lives, and the Sultan generously offered the same terms as before, which this time were accepted. All those who chose to leave the Island of Rhodes were allowed twelve days to do so. As for the knights, they set sail for the Island of Malta, where they were received rather as conquerors than as a defeated garrison, for, as was said by Charles V when he heard the news of the capitulation, "Nothing in the world has been so honourably lost as Rhodes."

In taking the island the Turks had lost a hundred and three thousand men in twenty-two battles; the knights seven hundred and three of their number. But the chief lesson to be learned from this siege is the fact that artillery had not yet become strong enough to destroy well-built fortifications, and thus the story of the Siege of Rhodes forms a good introduction to sieges of modern times where the whole nature of defences has been changed to meet the heavy fire of the great cannon.



# THE FIFTH PERIOD

SIEGE OF GIBRALTAR, 1783
SIEGE OF ANTWERP, 1832
SIEGE OF VICKSBURG, 1863
SIEGE OF PARIS, 1870
SIEGE OF PORT ARTHUR, 1904

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# THE FIFTH PERIOD

HIS last period extends from the early days of gunpowder to the present time, and owes its changed methods of attack and defence simply to the increased power and range of firearms. The general principles are not entirely different, but the application of them has given rise to some remarkable changes. When siege-guns were gradually so improved as to throw their heavy projectiles from one, two, three, and up to twenty miles, and when these projectiles came to carry explosive charges powerful enough to blow masonry to atoms, it became necessary at first to make walls as strong as possible, and finally even to keep them out of sight. Nothing except the solid earth itself, or the thickest toughened steel plates, can for an instant resist fire so effective.

Until recently it was believed also that the use of magazine rifles would make it impossible for an army to charge across an open ground against a line of defence held even by a very small body of men. But such charges, in spite of fearful losses,

have, as we shall see, been made, and made successfully. Fortified places, strengthened by every modern device and well defended, have been taken, and it seems that we have not yet reached the point where either attack or defence can be said to be too strong for the science and courage of an enemy.

In order to choose a siege that shall, while showing the effect of gun-fire, yet be new in its incidents, we shall next tell of the defence of the great fortress of Gibraltar in the year 1783. This is an interesting siege, and yet is little else than a grand fight of cannon afloat against cannon ashore. Full preparation was made on both sides, and it is purely a question of holding or losing a fortress. There are in these years so many great sieges from which to choose that it is necessary to select those that are unlike others in order that we may not repeat accounts of assaults, mines, sallies, and so on—which differ only in place and in date. The siege of Gibraltar had many peculiar features.

# THE SIEGE OF GIBRALTAR, 1783

HE great Rock of Gibraltar, one of the ancient "Pillars of Hercules" that were for ages looked upon as barriers beyond which sailors could not venture save at deadly peril, is connected to Spain by a sandy isthmus which makes the great rock a peninsula, guarding the entrance into the Mediterranean Sea. The rock itself has its highest point at the northern end, where it ends in a precipice toward the sandy isthmus. Toward the Mediterranean, too, it presents a cliff-like face. From the northern point the rock gradually lessens in height toward the south and west. The northern portion is about twelve hundred feet high, and the length of the ridge is a mile and a half.

Though the westward slope is gradual, there are deep ravines and high cliffs, making it difficult to ascend, and at the base a level plain is occupied by the town of Gibraltar. Being of limestone, the rock is honeycombed with caverns and passages, now and then opening into great rocky halls, but for the most part narrow and winding. These caves are

made beautiful by groups of stalagmites and stalactites. Though from a distance the rock seems barren, the country round about the rock itself supports much vegetation. The climate is tropical, with a dry summer and a rainy season in winter. Until very recently the water supply was not good, and as a military station the place had a bad reputation, so many of the garrison suffered from disease.

In history the rock appears as a fortress first when it fell into the hands of the Moors. It was the Moors who called it from the name of their leader, Tarik, "Geb-el Tarik"—Tarik's Hill. This name became Gebeltar, and then Gibraltar.

The fortress has withstood many sieges. In 1309 the Spanish took it; and, after an unsuccessful attack in 1315, it was taken again by the Moors eighteen years later. Two unsuccessful attempts to retake it followed in 1344 and 1349. The sixth siege was between two rival Moors; the seventh was another unsuccessful attack by the Spanish. In 1462 the Christians took it through a Moor's treachery, and then it was taken by a Spanish grandee, whose descendants lost it and then retook it. This makes ten sieges, and an eleventh followed when the Algerian pirates tried but failed to bring the rock once more under Mohammedan rule.

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The Spanish now greatly strengthened the fortifications, and throughout Europe this stronghold was regarded as impregnable. But in 1704 it surrendered to an attack by an English and Dutch fleet and a body of German soldiers. Sir George Rooke, although the attack had been made in the interest of the Austrians, hoisted the English flag over Gibraltar and took possession. The Encyclopædia Britannica declares it was unprincipled in England to take advantage of this unscrupulous act, and ungrateful to leave the English commander unrewarded! In the autumn of the same year an attempt was made by the Spaniards to regain the fortress, but they were defeated. Twentyone years afterward another Spanish failure was recorded.

These failures, the last but one of the various attacks and defences of the great rock, help us to understand both the strength of the fortress and also the intense desire of the Spaniards to gain possession of it. Consequently when France and Spain found themselves, in 1779, in alliance against England, one of their main objects was to succeed in driving the British from this gateway to the Mediterranean. They spared no labour, no expense, no thought, in preparing the grand expedition that

would, they believed, make the taking of the fortress a certainty.

At that time the English commander, General George Augustus Elliot, was sixty-two years of age, a skilful and energetic leader and tactician. The garrison consisted of about five thousand men, five hundred of them belonging to the artillery and engineer corps. There were four English and five Hanoverian regiments. Within five days after the declaration of war, the Spanish force took possession of the neck of land, cutting off the fortress from communication with the mainland; and their fleet, far stronger than the few British vessels in the harbour, prevented any communication by sea. While the Spaniards and French were preparing their serious attack, the garrison worked hard to make all ready, though it seemed that they might have to surrender before long through lack of food.

Gradually the townspeople escaped, one way or another, until only the British garrison and their families remained. By the beginning of the year 1780, having been cut off from the world for six months, the garrison were compelled by famine to subsist largely upon dandelion greens, leeks, thistles, and such roots and herbs as they could gather. The Hanoverian soldiers rigged up incubators to

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hatch eggs, and everything was done to increase and to eke out the food supply.

But just as they were reduced to the last extremity, an English fleet, under the great Admiral Rodney, won a decisive victory over the Spaniards at Cape St. Vincent, capturing the Spanish commander. It is said that this Spanish grandee on being told that the small boy who stood at attention near the gangway was the Royal Prince, who afterward became William IV, exclaimed: "Well does Great Britain merit the empire of the sea!" He was greatly amazed that one of the blood royal should be found serving as a petty officer in the English fleet.

When Rodney arrived in the harbour of Gibraltar he was able to land plenty of supplies and also strongly to reinforce the garrison. He took away from Gibraltar also the "useless mouths"; that is, all those not capable of fighting.

While the British fleet was lying at anchor, the Spanish endeavoured to burn it by means of fireships; but the attack was a failure, greatly to the joy of the lookers-on from the garrison above. Soon afterward the British fleet sailed away to the West Indies.

By autumn not only had the supplies once more [239]

run short, but owing to the garrison having been forced to live mainly upon salt provisions, they were reduced to a pitiful state by ravages of the scurvy, that frightful disease which in modern times science has made almost unknown except where shipwreck or some similar disaster cuts men off from civilisation for long periods. Fortunately, the ravages of the scurvy were stayed by the timely capture of a Dutch vessel laden with lemons and oranges; for the juice of these fruits is a specific for the disease.

Another supply of provisions came to the rock in 1781, and this was just in time to prepare the garrison against the last great siege, which began in May of that year. Batteries having been placed, the enemy bombarded the town and the rock for two months, succeeding in destroying the town, but doing little other damage. Against these batteries the English could do little; but in November of 1781 they sent out two thousand men, Elliot himself going with them, and captured the batteries, nearly a mile away, destroying them entirely and blowing up their magazines. This, however, had little effect in checking the bombardment, which was kept up so steadily that in an account of the siege it is noted by one of the garrison that from

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seven o'clock in the evening of May 4th to the same hour the next day no gun was fired—it being the first twenty-four hours that had passed for thirteen months without the discharge of cannon continuously.

Meanwhile the island of Minorca had been taken by the Spanish, and, emboldened by this victory, they brought before Gibraltar a force of thirty-three thousand troops, with a hundred and seventy cannon, hoping to repeat their success with the greater stronghold. The commander of these troops, De Crillon, prepared for the attack upon Gibraltar great floating batteries, devised by D'Arçon, a French engineer, which he did his best to make irresistible and indestructible. Taking ten ships, he cut them down to mere hulks, timbered them heavily all over to a thickness of seven feet, packed the hulls here and there full of wet sand, and ran water pipes through their walls. He also roofed them with hides upon a heavy framework so steeply pitched that it was believed all shot and shell would glance from them. They will remind American readers of the Confederate Merrimac.

These vessels were prepared in the harbour of Algeçiras, and against them the English, who probably had learned from spies what was going

on, resolved to employ red-hot shot in greater numbers than had ever before been used. For heating these, furnaces were built in the fortress near all the heavy guns. De Crillon relied upon the fact that his big vessels were made of green timber, packed with wet sand, and full of water pipes, and did not believe they could be set on fire.

Meantime, at home, in England, a fleet was preparing for the relief of Gibraltar, and it was during the preparation of this force that the celebrated catastrophe happened to the *Royal George*, which toppled over in dock, drowning nearly all of the ship's company. Cowper's poem on the subject is well known.

On September 12th the French and Spaniards advanced to the attack with forty-seven ships of the line, which carried each three tiers of guns, with the ten floating batteries, and many small craft beside. At the same time there were in their army forty thousand men waiting near a flotilla of covered boats ready to attack when the fort should be silenced.

The next day the floating batteries were towed to within twelve hundred yards, and by ten o'clock one of the greatest artillery battles in history began, some four hundred pieces of cannon being

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actively engaged. A perfect shower of red-hot cannon balls descended upon the Spanish forces; but apparently everything rebounded from the floating batteries without effect. All day, and until afternoon, both sides showered their shot upon the enemy, but at two o'clock suddenly one of the floating batteries was seen to give off great masses of smoke. At the same time its fire almost ceased, and the British began to hope that at least one of the monsters had been disabled.

What had happened was this: The British redhot shot had sunk into the green timbers, penetrating several feet. Here they had retained the heat long enough gradually to fire the timbers. In vain did the Spanish attempt to reach and extinguish the many fires that had been thus started. Their fire slackened, for even the artillerymen were busied in finding and extinguishing the many flames that had sprung up.

Meanwhile night had come on, and the British did not know how destructive their fire had been until a little after midnight, when the admiral's floating battery—that from which smoke had come—suddenly burst into a mass of flames. This was the beginning of the fires that caused the destruction of the fleet.

These battery vessels had been so heavily supplied with ammunition that as they took fire their crews were afraid to remain in them; and when, at five o'clock in the morning, one of them blew up with a tremendous explosion, it was decided to abandon them all. As soon as, by the light of these flaming vessels, it was seen that their fire had ceased, the British sent their own vessels to rescue the Spanish and French crews, and the fighting ceased while both forces despatched boats to take up the survivors. The British bravely tried to tow one of the floating batteries to Gibraltar, but hardly had they attached themselves to it when the fire reached the magazine and it was blown to atoms—a proof that the Spaniards were justified in escaping from it. By the next day all had burned.

It was not alone the enemy's fleet that suffered, for the British had destroyed also two of the land batteries and had succeeded in repulsing several desperate attacks at the southern end of Gibraltar, where, under cover of the terrific fire, the Spaniards had tried again and again to land troops. It was estimated that during the engagement four thousand red-hot balls had been shot into the battery-ships alone, while the Spanish and French had fired



The Burning Ships before Gibraltar, 1783



### THE SIEGE OF GIBRALTAR

against the fortress in twenty-four hours over seven thousand shot and shell.

This was the grand effort of the besiegers, and it had completely failed. During nine weeks of active siege the British lost only sixty-five killed and less than four hundred wounded, while the fortifications were hardly injured by the rain of shot and shell upon them.

Though the siege continued for several weeks longer, on October 11th, Lord Howe (the same Howe who had commanded in America) arrived from England with supplies and reinforcements for the garrison, and all hope of taking the place was abandoned. Peace was not made, however, until February of the following year, at which time it was formally agreed that Gibraltar should remain in the hands of the British.

From the first blockade to the end of the siege covered a period of three years, seven months, and twelve days, and in all this time the loss of the garrison was only four hundred and seventy men by warfare and about twelve hundred from illness and privation.

To contrast with this attack on a seaport, we shall tell briefly the story of the taking of a great

land stronghold. This will show how the besiegers, by means of a regular digging of trenches, and the regular advance of batteries, gradually got near enough to blow up the fortifications, and thus gain an entry for their soldiers.

# THE SIEGE OF ANTWERP, 1832

back as the siege of Orleans, and earlier, gunpowder had not played an important part in the taking of cities until the guns had been made light, so as to be readily moved about and to shoot straight enough to destroy the old-fashioned engines of war from a distance so great that these could not reply to the cannon. In the siege of Rhodes, cannon played a somewhat important part by making breaches in the walls. Gibraltar, one might say, was rather a high cliff than a fortress, and the work of the cannon in that siege was shown in the destruction of the besiegers' vessels rather than in any great damage to the English fort.

Still, as artillery improved and gunners became skilful, it was found that the old-fashioned sort of fortifications had to be completely changed. No longer was it enough to build up strong, straight walls, for these could be easily battered down by pointing a number of heavy guns at one place. In order to meet this defect in strongholds, there arose

a number of clever engineers, who invented ways of building fortifications meant to secure two results. The first of these was to keep the besiegers as far as possible from the main walls and to arrange their own guns so that the besiegers could not advance nearer. The second was to arrange the lines of their own forts so that as fast as any of these were taken by the enemy and the besieger tried to turn them to his own use, the captured lines would be brought under the fire of the other guns of the fort.

In short, there began to be a regular science of fort building, which was worked out down to the finest nicety. Every line and angle was calculated so that the fire might be as strong as possible in protecting each point. The science is one that would require several volumes for its complete explanation, but in the form that it took in the early days it has ceased to be very important, because improvement in cannon has been so great that the old rules meant to meet the old-fashioned style of attack no longer apply. Forts are now attacked from a greater distance.

To give the young reader some idea of the building of a fort around an important place, it will be enough to give a brief account of the dif-

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ferent lines that made up a complete system of defence.

Commencing at the inside, a slightly elevated platform of earth was known as the "terreplain." Rising from this, a slightly higher platform was known as a "banquette." This was high enough to permit the soldier to fire over the "parapet," which was the real breastwork. The front of the parapet was strengthened with masonry, and this front was called the "revetment." It faced upon a narrow "ditch," the two sides of which were the "escarpment," and on the side away from the rampart, the "counterscarp." All this first inner wall, taken together, was called the rampart. In front of this came another slightly lower embankment of somewhat the same shape as the rampart, called the "tenaille." Beyond the tenaille was the main wide "ditch." Next, outside the wide ditch, came a third embankment, called the "ravelin." This also had its ditch and outside of that ditch its protected embankment, which last sloped off gradually until it was lost in the flat ground.

Thus it will be seen that there were really four lines of defence, each one of which is separated from the other by a ditch, and each one is so arranged as to look down on and to command the next outer

one by its fire. Each served as a breastwork for the garrison, and yet when taken gave little advantage to the besieger.

A complete account of this system of fortification, which was varied in many, many ways, will be found in the Encyclopædia Britannica under the word "Fortification." So skilfully were these ramparts arranged that until artillery was greatly improved the art of defending cities was easier than the art of taking them, and to this is due the fact that during the sixteenth century many cities and towns were able to defend themselves successfully when they became rebellious and defied their feudal lords. Behind their walls their citizens feared no attack.

But, gradually, ways were found to overcome this advantage. A great French engineer and commander, named Vauban, learned both sides of the art so thoroughly that he was able not only to build magnificent fortresses, but also to teach King Louis XIV and his generals how to take them. Vauban invented the system known as "ricochet fire." This consisted in so directing the fire of the besieging guns that the cannon balls, instead of being aimed directly at the face of the forts, were fired so as to glance from their top and in bounding to drop

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just over the edge of the embankment. The result of this sort of firing, when accurate enough, was to dismount the guns of the defenders, thus making some parts of the wall defenceless, after which they could be taken by the usual assaults. The besiegers also made guns, or mortars, meant to fire shells upward so that they would fall over and inside the ramparts, destroying guns and men.

Besides this system of direct attack, the engineers of besiegers worked out a complete system of approaching a fortress by trenches. They would begin just out of range and dig a long trench, parallel to the walls of the fortress. This protected their soldiers and engineers, their sappers, pioneers, and miners, these latter being the men provided with picks and shovels and explosives for the purpose of digging their way by open trenches or underground mines toward the fort.

A good illustration of this method of taking a strong fortress is given by the siege of Antwerp, in 1832. The fortress at this time was held by the forces of the King of Holland against the will of the Belgian people. France and England, having agreed to protect the liberties of Belgium, called upon the Dutch garrison to withdraw, and upon their refusal, sent a very strong army, well provided

with all necessary siege-apparatus, for the purpose of taking the fortress. The besieging army consisted of about sixty-seven thousand men, thousands of engineers, and had plenty of artillery. The Antwerp garrison altogether included some five thousand men.

On November 24th, at dark, the French engineers began their first digging or ditch, at a little less than half a mile from the citadel. Five days later they had completed their first parallel, which slanted so that its nearest point was within about a thousand feet of the citadel and its farthest point within about twelve hundred feet. This trench was connected with their camps by "approaches," roads dug in the ground and covered with logs and earth, so that men could enter it without being exposed to the fire of the fortress.

On November 20th they began two "zigzags." These were trenches that approached the fort at a slant, first one way and then the other, the object being to protect the men from fire at the same time that they were digging nearer and nearer. In the next few days they were able to carry the zigzags within about four hundred feet of the "glacis," or first upward slope of the fort, and meanwhile by night they had built nine strong

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earthwork batteries upon the surface of the ground and in front of their *first* parallel trench, and these batteries were connected by trenches with the parallels. If the garrison should charge these batteries, the soldiers in the trenches could hurry to defend the artillerymen.

Two mortar batteries were also set up, farther back. By December 4th the besiegers had completed a second parallel that was much nearer to the city. The same method of approach by digging trenches and zigzags and then establishing batteries was continued until December 9th, when they had dug their trench close up to the ditch of the fort and broken their way into the ditch itself. To this a covered way gave the besiegers entry.

On the night of the 10th the garrison of the fort dashed out and tried their best to destroy these nearest works, but the besiegers were on their guard, drove back the garrison, and soon repaired the damage that had been done. The following night the besiegers prepared three great rafts of logs with which they meant to cross the ditch. They had exploded a great bomb known as a "petard" against the wall of the fort, making a breach. Into the hole thus made a brave sergeant had ventured, so as to begin digging out a gallery under

the masonry. During the next two or three nights this gallery was enlarged and three subterranean mines dug out beneath the projecting part of the wall. This part of the fortress was known as the "Bastion of St. Laurent." It was an outer defence.

At five o'clock in the morning the fuses were lighted, and by the explosion a great part of the wall was thrown into the air, leaving a wide gap. Into this, with fixed bayonets, rushed a strong storming party, capturing one lieutenant and forty-eight men who had not been able to withdraw.

The besiegers were now in possession of part of the fortress itself, and made it the means of entering into the main defences. From this point the sapping and mining continued, with the advantage that, being within the very fortress itself, the besiegers were not exposed to their enemy's fire.

During all this time it must be remembered that the batteries outside were pouring shot and shell constantly upon the walls of the fortress, and thus keeping the garrison from bringing a strong force to the point which the besiegers were attacking. On December 21st began a grand bombardment, which lasted until the 23d. By this time the besieged garrison had lost so many men, and the walls had been weakened in so many places, that

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the commander had decided defence to be hopeless, and surrendered.

The fall of Antwerp was due to the enormous advantages on the side of the besieging army. They had a force ten times as great as that of the garrison; they were able to surround the besieged places on all sides so as to prevent its being reinforced or supplied with provisions; they had plenty of artillery, so as to keep up a steady rain of missiles upon the fort; and thus the fall of the fortress was sure, either by being breached, by the loss of men inside, or by the failure of provisions.

It had come at this time to be regarded as certain that, given plenty of time and men, no garrison could maintain itself against a besieging force. Sooner or later, the parallels and zigzags would bring the besiegers close enough to blow up the walls in one or more places, and thus to take the various defences one by one until the citadel had fallen. It followed from this that the fortifying of a town came to mean little more than delaying the forces of the besieger in the hope that help would come. As the fire of artillery improved and became heavier, it also was proved that there was little to be gained by building elaborate forts of

stone, since earth walls were better defences and were less injured by shot and shell. In fact, a battery on a big hill of earth was the best fortress.

The next step, as length of range increased, was to fortify high points of ground at a distance around the city to be defended, since these, when well provided with guns behind thick earthworks, were the best possible way of keeping the besiegers at a distance; and they had to be taken by regular approach in trenches precisely as if they were built of stone walls.

Thus in modern times we see a system of attack and defence where earthworks on one side are attacked by earthworks upon the other, the first being fixed and the second being built more and more near as the besiegers force their way forward.

In the siege of Vicksburg there is an illustration of a great city defended by one strong army and taken by another after a most heroic defence, in which the line of fortifications was made up of such earth forts on high points connected with one another by means of long trenches, or rifle pits. The attack was first by charges, and then by regular approaches, with mines, as we shall see.

Northern and the Southern States the situation was not exactly understood on either side. Even the wisest leaders and statesmen had no idea of the greatness of the struggle, or of what points would become most important. It was not until both sections awoke to the knowledge that neither side was to have an easy victory, but that a long and closely contested war was certain, that there was deep thought of wherein the strength of the two sides lay. At this time a few far-seeing men, and at least one woman, Miss Anna Ella Carroll, saw that the strength of the Confederacy lay in the possession of the Mississippi River.

One of the first to see this was Admiral Porter, of the Union navy. He went to Washington and laid before Lincoln and McClellan a plan for taking the city of New Orleans, thus securing the mouth of the Mississippi, and then by means of expeditions up the river and down the river, uniting at Vicksburg, to capture the great fortified

bluffs that prevented Union vessels from going up or down, and thus kept all the lower Mississippi open to the Confederates.

Lincoln saw the importance of this suggestion at once, saying: "The Mississippi is the backbone of the Confederacy. It is the key to the whole situation. While the Confederates hold it, they can obtain supplies of all kinds, and it is a barrier against our forces." This was because the rivers that flow into the Mississippi communicated with States on each side that afforded food and materials which, at New Orleans, where there were skilled mechanics and many manufacturing establishments, could be turned into whatever was needed by the Southern armies, and then sent to them by land wherever they were fighting.

With the capture of New Orleans we have nothing to do. It is enough to say that Farragut's fleet ran by the forts and compelled it to surrender. After the taking of that city, the only great strongholds left on the river were Port Hudson and Vicksburg. Great expeditions, both by land and water, were prepared to take these cities, and since whatever was done on either side soon came to the knowledge of the other, the Confederates worked vigorously to strengthen the defences of both places and

to garrison them as strongly as possible. Many of the troops that had been driven from New Orleans marched northward to aid in the defence of Vicksburg.

We shall not tell of the long siege of Port Hudson, though the story is a most interesting one, but shall confine our attention to the even more striking attack and defence of the city of Vicksburg; for the fall of Vicksburg was followed soon after by the surrender of Port Hudson, partly through lack of provisions, and partly because the Confederates recognised that it could not be long held after the forces that had taken Vicksburg were set free to aid in the already strong attack on Port Hudson.

The city of Vicksburg lies right upon the river bank, on precipitous bluffs, against the foot of which the river flows, except at the southern part, where there is a wide, sandy strip ordinarily left bare. These bluffs, rising two hundred feet above the water, formed not only magnificent sites for batteries, but were almost out of reach of shot and shell from any cannon carried by the ships of war. The only fire effective against them was that of mortars—short, thick cannon, pointed upward—which sent shells high into the air to fall with a

plunging fire inside the fortification and upon the city.

The first efforts of the Confederates were devoted to increasing the number of guns along the bluffs and in manning them from the many skilled gunners who had been driven out of Forts Jackson and St. Philip, near New Orleans.

On June 20th, 1862, a young Confederate engineer, S. H. Lockett, arrived, and was put in charge of the defences. He had been working for about a week in placing batteries along the bluffs above the city, and in preparing a complete map of the country round about, when Farragut's fleet was sighted coming up the river. On June 27th the fleet placed on the opposite side of the river a great flotilla of mortar-boats, out of range of the Confederate forts, but near enough to throw shells into the city.

Hardly had these vessels taken their positions when, suddenly, a second flotilla was discovered on the near side of the river, too close to the bluffs to be fired upon, since the great guns could not be bent far enough downward to reach them. This second flotilla had been fitted up with a mask of trees and, hidden by these, had stolen up the river without being seen.

At once the bombardment began and was vigorously replied to, but little harm was done on either side. On the next day, at dawn, firing began again, and several of the Union vessels succeeded in running up the river past the batteries, losing a few sailors and killing by their firing a few of the Confederate artillerymen. It was believed in the city that a land attack would follow, and ten thousand men were made ready to meet it. But it proved a false alarm. The Union fleet that lay above the city now came down, and joined in the attack, bringing another flotilla of mortar boats; and then a bombardment of two weeks followed that did little except make the inhabitants of Vicksburg uncomfortable. As there are great banks of clay in the vicinity of the city, many of the people dug into them and excavated rooms, which they furnished comfortably for refuge during the firing from the Union fleet. Cave-building became a regular business in the city.

The river opposite Vicksburg makes a sharp bend, leaving a long tongue of land surrounded by the bend, on the point of which was a little town named De Soto. The Union engineers thought that by cutting through the neck of this tongue of land they could get from the river above Vicksburg into the river below. A canal was dug, but the water of the river fell faster than the canal could be deepened, and the attempt to make a new channel, leaving Vicksburg harmlessly aside, had to be abandoned.

From July 15th to 28th Vicksburg was exposed to the fire of the mortar boats, and witnessed during that time a most exciting naval engagement, when the Confederate ram Arkansas came down from the Yazoo River and made a most gallant fight against the Union fleet. But by the end of the month it had evidently been decided that an unsupported naval attack was useless, for, without warning, suddenly the whole fleet set sail, leaving the Vicksburg people free to come out of their cayes.

It was evident to the Confederate engineers that Vicksburg was too important to be left alone, and since the unsupported naval attack had failed, they foresaw that a land and naval attack was sure to follow. Consequently, during the interval, they repaired the river batteries so as to make them stronger than ever, and thoroughly studied the land side of Vicksburg in order to pick out the strongest lines of defence for the building of fortifications.

Back of the city the land consisted of a long succession of hills, separated from one another by deep ravines. It would have been most laborious to make a connected line of ramparts over this uneven ground, and so the engineers wisely decided to place at the head of each ravine a strong projecting fortification, somewhat triangular in shape, and then to connect these with one another by long lines of rifle pits—that is, trenches to which the earth dug out formed an embankment. These fortifications were built largely by slaves, who were brought in from all the surrounding country. When finished, the line of defence extended seven or eight miles, from Haynes's Bluff, on the north, around Vicksburg to Warrenton, on the south.

About the middle of October, 1862, General Pemberton was in command of the Confederate forces, General Grant of the Union troops. It had long been an accepted truth among military men that a general advancing into a hostile country must, above all things, have a strong "base of supplies"; that is, some fort or town strongly held, from which the army could be supplied with food and ammunition. General Grant had such a position at Grand Gulf, some miles down the river, and his first advance against Vicksburg was de-

feated by a bold and successful raid of the Confederate cavalry, which threatened to cut off his line of supply, and Grant had to return toward this base.

Then General Sherman tried from the northward to get in the rear of Vicksburg to cut off the Confederate troops which lay eastward of the city; but this attempt was defeated in a fierce battle at Chickasaw Bluffs. Next followed another attempt by Grant to approach from the Louisiana side and to try the canal scheme again, but he was forced to retire. Other advances also were made by different bodies of Union troops, but none were successful.

Although the story of these various expeditions is most interesting, we are concerned at present with the final, successful movement made by General Grant, when, learning that he could not expect strong reinforcements for some time, and so would be tied to his base of supplies while the Confederates were constantly strengthening the city and reinforcing its garrison, he suddenly decided, against the judgment of his advisers and superiors, to abandon the line of supplies, to march northward into Mississippi, so as to meet and, if possible, defeat the Confederate forces that lay eastward of the city.



General Grant, the Commander before Vicksburg



In May of 1863 he fought and defeated three Southern generals, one by one, captured the city of Jackson, the capital of the State, destroyed there great stores and useful manufactories, and gained possession of this great railroad centre through which most of the supplies for Vicksburg came.

Meanwhile General Pemberton was at a great disadvantage because he had not enough cavalry to keep him informed, by scouting, of the movement of the Union troops; besides, he was under conflicting orders, President Jefferson Davis telling him to "hold Vicksburg at all costs," while the Confederate General Johnston was insisting that Vicksburg be abandoned and that the forces of Pemberton should unite with his own to defeat Grant's army.

Pemberton's army, mistakenly thinking that they were attacking the rear, or a small part of the Union troops, made a vigorous attack upon the entire body of victorious Federals as they came from the capture of Jackson. The Confederates were outnumbered, defeated, and so forced to retire toward Vicksburg, vigorously pursued. Pemberton made a brave effort to hold his ground at a bridge where the Jackson road of Vicksburg crosses

the Big Black River; but his men had been shaken by their defeat of the day before, and after a short attempt to hold their intrenchments, were driven from the bridge and saved from capture only by the promptness of engineer Lockett in burning the bridge behind them, which he did at great risk and just in the nick of time by throwing upon it a barrel of turpentine, as soon as the Confederates were mostly over.

The Confederate army was now shut up in Vicksburg, and the city was surrounded on the land side by Grant's troops, while the river was held by the Union navy. Lockett hastened back to Vicksburg with full authority from Pemberton to put all in the best possible state of defence. The troops that had been driven into the city were held in reserve in the less exposed parts of the fortification, while fresh troops manned the ramparts upon which the first attack must fall should the Union army assault the lines.

The artillery on the land side had been strengthened by bringing from the river bluffs all but the heaviest artillery, until there were over a hundred guns in position to defend the forts. The front of the fortification was strengthened by an "abattis" or mass of felled trees, with sharpened branches,

and was also protected by entanglements of telegraph wire to delay the assault. These were made by a tangle of wire fastened firmly to stakes driven into the ground.

It was on May 18th that the first soldiers in blue were seen advancing on the roads to the east of the city. The Confederate pickets were driven in, but not until they had made resistance enough to allow the main force to withdraw to a safe place behind the ramparts.

The Union troops believed they had before them the men whom they had already defeated several times and had so easily driven from their intrenchments at Big Black River, and were most eager to attack. The next morning, in the hope of an easy victory, they rushed forward in force right up to the main line of defences, above which not a defender could be seen until the assailants had come within close range. Then, suddenly, so terrific a fire was poured upon them that their desperate attacks were driven back, though made again and again. They at last had to abandon the attack with the loss of five stands of colors, of which the colorbearers had been shot down. Even repulsed, the brave fellows retained an advanced position; but they had been entirely convinced they could not

take the fortresses in a first rush, and that there was no "scare" in the men who made up the Confederate garrison.

During the two following days both armies were at work, the Confederates building "traverses"—that is, embankments running at right angles back of their main lines to prevent side fire from reaching the men in the trenches—and preparing also "covered ways" by which they could go from their ramparts and trenches to their camp, protected from Federal sharpshooters. Many men on both sides were shot down by carelessly exposing themselves, until, after several days, both armies had learned caution and kept under cover.

On May 22d another attack was attempted, accompanied by a fierce bombardment from the river; but though the Union troops reached the trenches three times, and even planted flags upon the parapet itself, they were driven back at every point, and though they took one outwork, it was very soon retaken by the Confederates.

This terrible assault left thirty-five hundred men between the lines, and was not repeated. By the 25th it became necessary to remove the dead and wounded, and General Pemberton proposed a truce for this purpose, which General Grant accepted.

During this truce Lockett, the engineer, tells of his being sent for by General Sherman to receive letters for residents of Vicksburg, which Sherman had undertaken to deliver. The Confederate engineer shrewdly suspected that Sherman kept him in conversation in order that he might not have leisure to inform himself as to the lines of attack, which the bright Confederate engineer admits he was eager to do!

The Union generals had now to give up any hope of taking Vicksburg except by a regular scientific approach; that is, by digging their trenches in a zigzag toward some of the main points of defence. These trenches were carried forward under cover of the night, and by day were protected by great rollers made of timbers packed full of cotton, so as to make a rolling breastwork.

To meet this form of attack, a clever Confederate soldier devised the plan of shooting from a big musket a fuse filled with cotton soaked in turpentine. This was shot into the roller, which caught fire and was destroyed; and the Federals, being left unprotected, were forced to retire from the head of their trench. Yankee ingenuity met this device by keeping the cotton soaked with water, and the digging of the zigzag trenches was carried on until

they approached close to the works. To protect these "saps," in case the Confederates should charge out upon them, barrels of powder and loaded shells were left in them ready to be lighted as the Union sappers were driven out.

By June 13th these saps had come so near that the Confederates began to "countermine" their fortifications; that is, to dig underground galleries beneath them, which, packed full of powder, could be blown up when the Union troops should attempt to take possession of the embankments. The men at work in these countermines could hear the Federal miners at work not far away, but Lockett tells us that it was almost impossible to judge distances and directions from the sounds heard underground.

On June 25th a mine laid by the Union engineers under one of the strongest points of the Confederate works (the Third Louisiana Redan) was exploded, making a small breach in the line of works. But behind this part of the works another redoubt had been built, and vigorous fire defeated the Union attack made upon the gap in the walls. For the next few days the activities of both sides were mainly given to mining, but on the Confederate side some of these mines were exploded too

early and did no damage, and others were never used at all.

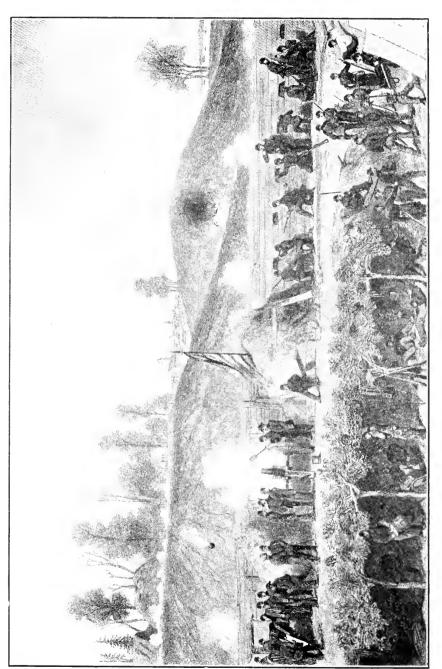
On June 29th the Union engineers had succeeded in carrying their attacking trench forward close to the Third Louisiana Redan, where the first breach had been made, and were directly under the edge of the Confederate embankment. So close were they, that the Confederates rolled shells with lighted fuses down the front of their defences, and thus drove out the attacking force. Then at night the Union troops built and placed over their heads a great screen of heavy timber, which even the shells could not in jure. But in the morning, when this was discovered, it was soon destroyed by means of a barrel containing a hundred and twenty-five pounds of gunpowder, which was dropped over the edge of the embankment, and blew the timber screen to pieces.

On July 1st another great Union mine containing tons of gunpowder was exploded, making a breach in the defences fifty feet across and twenty feet deep. And in this horrible crater took place a most terrific and destructive fight, where the two armies came hand to hand, where the slightest exposure meant death, and where bravery and devotion were too common to be noted. By this

explosion a great breach had been opened even in the second line of defence that had been built behind the rampart where the first breach was made. The Confederates tried to fill the opening by pouring in earth, but the Union fire was so terrific as to sweep the dirt away faster than it could be thrown in. Sand bags were tried, but these too were blown to pieces, and finally the breach was filled only by making great bags of waggon covers and tent cloths, which, packed with earth, were pushed from the side across the opening.

In these attempts the Confederates lost a hundred men. This was the last stirring incident of the siege, for the Union troops were now at several points so close to the Confederate fortifications that Pemberton was convinced he could not resist an assault; and, indeed, many of the Confederate soldiers had told their enemies (to whom, so close were the two lines, they could talk freely) that the Confederates had almost mutinied because they did not believe that successful resistance was longer possible.

Vicksburg was surrendered only when the Union lines had come so near that the soldiers could spring from their trenches right upon the Confederate ramparts, and when by hunger and fatigue the



The Besieging of Vicksburg



defenders were too weak to resist. Many of them could do no more than stand in their places and fire their muskets.

The famine in the city had left almost nothing to support life, and the Confederates' rations were not enough to give them strength. They had yielded only to regular siege operations—and an assault would have been simply a bloody sacrifice of lives.

There are only seven years between the siege of Vicksburg and that of Paris by the Germans. But the defences of Paris were very different from those of the Southern city. Paris had always been fortified, and in addition to the great wall that had been kept up since the Middle Ages, it possessed a ring of great forts armed with heavy, long-range guns, meant to keep an enemy at the distance from its inner defences.

Though, before the French defeats, the arrival of the Germans was not expected, yet in the short interval given them the French did marvels in preparing for their defence of the capital; and the defence itself was most admirable. Even German authorities admit that all was done which was possible under the circumstances. Their taking of the city was due only to the lack of a trained force

of soldiers in France to come to the relief of the long-enduring Parisians, who bravely withstood famine and disease, and heroically fought as long as there was a possibility that the city would be rescued.

# THE SIEGE OF PARIS, 1870

HEN we come to the taking of Paris, in the Franco-Prussian War, we reach a time that is in every way modern, and yet so rapid have been the changes in the last thirty years that in certain respects many of the things that seemed remarkable in those days are now almost old fashioned. So many inventions were made between that time and ours that the warfare of to-day makes even the war of 1870 seem anything but up-to-date. They used the old black gunpowder with its heavy smoke instead of smokeless powder; their guns were far inferior in force and rapidity of fire; they made little use of electricity compared to the numberless ways in which it is now employed; and certainly upon the side of the French the siege showed complete lack of previous preparation, owing largely to their surprise at the rapid progress of the German army.

The origin of the war is said by the French historians of later times to have been due to the desire on the part of the emperor to win military glory,

so that his descendants might retain the throne. Prussia had been growing in power so rapidly that the French were alarmed, and desired to curb her strength. The Crown of Spain was offered to a young prince of the Hohenzollerns, the royal house of Prussia, and though he refused it, France demanded a promise that Prussia would not allow, in future, one of her princes on the Spanish throne.

The despatches telling of the refusal by the King of Prussia were deliberately "doctored" by Bismarck to bring on war. He believed war must come, knew Prussia was ready and France was not, and so desired the fight. France declared war, since the emperor and the government were told everything was ready. The French Minister of War declared, publicly, that "though the war should last a year, they would not need to buy even a gaiter-button." This was absurdly, disgracefully untrue of the French, entirely true of the German preparations.

At a mere skirmish, near Saarbrück, the French were victorious, and Napoleon III sent a boastful telegram that the Prince Imperial had received "his baptism of fire." But as soon as the armies came together in serious conflict it was found that the German general, Von Moltke, and his staff

#### THE SIEGE OF PARIS

knew everything about the French country and forces, had complete plans, had brought into the field perfectly equipped armies, and could easily overwhelm the half-prepared French at every point. On the French side everything was wrong, confused, unready, and at cross purposes. The only thing worthy of praise was the superb bravery of the French soldiers, of whom their own statesmen then said that they were "lions led by asses"!

A few of the French officers distinguished themselves, but their fighting was like a football game in which "team play" is utterly lacking. Those who fought well lost all advantages through lack of support. There were throughout France guns without carriages, waggons without horses, troops without rifles, officers without maps.

There is no need to retell the painful struggle made by the brave Frenchmen, who simply were striving to do the impossible. The Germans won every field, and separated the three French armies from one another, shutting one into Sedan and capturing it with the emperor; another was driven into Metz and hopelessly besieged. The only notable resistance was made by the Army of the Loire, which had some successes at Orleans, but was finally overwhelmed by numbers and practically driven

out of the field. In the same way the Army of the North also won a few battles, but when heavier forces were brought against it, it was forced to retreat, finally passing into Switzerland and laying down its arms.

The war had been declared on July 15th. It was at the beginning of September that Napoleon III had been captured, and as soon as this news reached Paris he was declared deposed and a new government was created—a Republic devoted simply to the defence of the fatherland. The great crowd of Parisians that flocked into the Place de la Concorde burst into cries of "Vive la République!" and before the end of the next day the revolution was complete, the empire at an end, and the new government at work to prepare the city for the siege that all knew must soon follow.

Orders were given to turn out all German residents (for fear of spies), to provision the city with flour, herds of cattle, flocks of sheep—every sort of supply that could be drawn from the country round about. The defences of the forts around the city, which occupied detached hills, were put in order, bridges over all neighbouring rivers were mined, ready to be blown up, or were torn down; all houses and woods that might prevent the artillery-

## THE SIEGE OF PARIS

men from seeing the advancing enemy were burned to the ground, and even great barricades were planned to be placed in the city if the Germans should succeed in passing the forts.

To keep watch for the enemy, a great captive balloon was sent high above the city, where it floated at the end of its long rope. In order to arouse the rest of France to the greatest efforts, Gambetta, who was the moving spirit of the defence, entered a balloon basket, escaped from the city, and succeeded in making his way to Tours, where many of the authorities in charge of the war were gathered, having left Paris as the Germans came dangerously near.

Meanwhile the German armies had been arriving, almost unopposed, to within a short distance of the city, here and there meeting some momentary attempts at resistance, but no organised force of any size. By the middle of October, despite several sallies which were sharply repulsed, the Germans had made their lines about the city a complete ring, so that no supplies could reach the capital.

On October 27th came news of the surrender of Metz, containing a hundred and seventy-three thousand French. This set free for the surer taking of Paris two hundred thousand of the best soldiers

of Germany, against whom, inside and outside of Paris, could be mustered only almost untrained men.

The French, despite all disadvantages, still showed the utmost bravery at times, making, on October 30th, a grand attempt to break the German line, in which they say that the bayonets of the armies crossed—an occurrence that is very rare in modern warfare, having taken place in our own Civil War only, it is said, at Spottsylvania and perhaps in the storming of one or two forts, like Fort Wagner, or in the siege of Port Arthur in 1904.

After Metz was surrounded, it was seen that only the army of Marshal MacMahon could bring help to the French. As a last resort the empress directed Marshal MacMahon to try a flank attack upon the Germans, in the hope of diverting them from their advance upon Paris. In speaking of this afterward the Germans said that if he had commanded a thoroughly prepared army the policy might have been a wise one; but with his half-trained soldiers, the attempt resulted only in MacMahon's being driven back to Sedan, where he was later forced to surrender eighty thousand men.

In a little over two weeks from the time the Germans had first arrived around Paris the serious

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siege began. Toward the end of September an attempt had been made to enrol in the French army of defence every citizen from the age of twenty to forty. But although this undoubtedly raised troops who were patriotic, brave, and devoted, they were untrained and had nothing of the steadiness of veterans.

Meanwhile Paris, unprepared for the siege, suffered from every sort of privation. One by one, first luxuries and then necessities began to fail. Not only was the city compelled to provide for its own citizens, but from miles around the country people had been coming in daily up to the very arrival of the German army to take refuge within its walls, bringing their few household goods in the hope of saving them from the German invaders. Food rose rapidly in price, and when ordinary kinds of meat failed, every eatable animal was resorted to for butcher's meat. In the markets not only was horse meat commonly seen, but that of mules, dogs, cats, and rats; and by the slaughter of the animals in the zoölogical garden, the meat of elephants, lions, tigers, and every sort of beast, was brought to market and eagerly bought by the starving Parisians. Many books have been written concerning the incidents, the miseries and the humours of the siege.

Communication with the outside world was kept up by despatching balloons, over ninety of which left the city, and nearly all reached the outside world in safety. Carrier pigeons also were used to convey messages that had been photographed to microscopic size, printed upon the thinnest paper, thrust into quills, and attached under the birds' wings.

The winter proved intensely cold. When ordinary fuel failed, everything burnable was soon used up to keep the inhabitants from freezing. Almost no news reached the city from outside, and what little came was discouraging.

The Germans at first remained satisfied to keep their strong lines unbroken, knowing that they had plenty of troops to meet and defeat the few armies that could be raised in France for the purpose of relieving the beleaguered city, and yet could easily overwhelm any sortie made by the Parisians.

There was not much military skill shown in these French attacks, though there was plenty of desperate bravery. In the journals of the German staff we read that it was easy to know when an attack was preparing against the German lines, for a battle flag was hoisted near the French forts where the troops were gathering for the assault. Thus the

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forewarned Germans had ample time to bring a strong force to any threatened point.

When the French had determined to risk all upon one last attempt to break through the German forces, they went about its preparation so openly that the German officers could see the troops marching to the points appointed; and, from the German Emperor down, the leaders placed themselves where they could not only see every movement, but could direct the placing of the German forces to meet the attack. Consequently when the French came out, they were met by so deadly a fire that their desperate charges did not carry them even to the first line of the German armies; and the French reserves were thrown into disorder by the artillery of the Germans, which had been so placed as to destroy them even before they could reach the field of actual fighting.

For three or four hours the hopeless struggle was renewed; but though a few places of small importance were captured and held for a short time, by nine o'clock that night the attempt of the French to break through had ended in a defeat so complete that in the morning there was no spirit to make a second attack.

The Germans had not wished to bombard the [283]

city. They believed that when the French saw resistance to be entirely hopeless surrender would follow. But although all attempts to break through the German lines had failed, the French pride refused to surrender, and deluded itself with wild dreams of outside interference or impossible successes by the provincial armies, and refused even to ask terms. It was only when the city was within two weeks of the end of its food supply, and when the last sortie had failed, that Paris was willing to talk of capitulating. On January 28, 1871, terms were made whereby France gave up Alsace and Lorraine, a thousand millions of dollars, and agreed that the Germans should hold the city for fortyeight hours. Thus ended the siege, and at once England, Germany, and France united in sending food to the starving people.

The lesson to be drawn from the siege of Paris has been pointed out by the German comments. It is the certainty that untrained men, no matter how brave and intelligent, and willing to lay down their lives in desperate fighting, cannot hold their own against even inferior numbers of trained soldiers directed by intelligent, instructed officers. The French were mere amateurs playing the game

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of war against professionals. Paris was really taken by blockade rather than by a siege. It was a starved city that surrendered to the German armies, for none of the great fortresses were taken or needed to be taken. The Germans merely made their circle of soldiers and kept it unbroken until famine forced the surrender.

And now we come to our own times. Though there were some notable small sieges between that of Paris and that of Port Arthur, none of them give us any new point of view. But at Port Arthur were used new weapons, new artillery, the telephone, search lights, modern warships, torpedoes—all the modern improvements in war. The stronghold was prepared by five years of skilled work of great Russian engineers, and no money was spared to make the forts able to resist any force that could be brought against them.

They were placed on lofty ranges of hills, were provided with bomb-proof trenches, protected with steel plates, with deep ditches, with concrete walls, and were strengthened with wire entanglements charged with strong electric currents. And yet, despite machine guns that sent rains of bullets, of strong garrisons having ample supplies of ammunition for their quick-firing magazine rifles, of

great search lights, of rockets and bombs that turned night into day, these forts were taken one by one, and at length Port Arthur was surrendered to Japan.

The story cannot be told at length, but we must at least note the most important features of this—the most modern of great sieges.

PORT ARTHUR is a fine harbour on the southeast coast of Manchuria, just opposite Corea and Japan. It is situated in a long peninsula, at the end of which is a protected port for vessels, the entrance being a narrow strait less than a quarter of a mile wide. The peninsula ends in a great circle of hills surrounding the town and harbour, making the place a wonderfully good fort when properly supplied with artillery and fortified in modern ways.

The trouble over the possession of this harbour—the key to Corea—began between the Chinese and Japanese; and in a war between these two races Port Arthur was taken without great difficulty by Japan. When they came to make up terms of peace, Russia, Germany, and France insisted that Japan should give up Port Arthur. Japan surrendered her capture—and a hundred Japanese committed hara-kiri in solemn protest against her withdrawal. Then, by an agreement, Russia secured it for a few years, promising to give it up.

When Russia took Port Arthur, it became the end of her great Trans-Siberian Railway, and she spent, it is said, three hundred millions in improving and strengthening the place, so that it might serve as a harbour open all winter—something Russia has eagerly sought for many years.

As the time came for Russia to withdraw, it was plain that she did not mean to keep her agreement. Japan, knowing that this fortified place occupied by a Russian fleet would put her in constant danger, insisted upon the withdrawal, and when certain that Russia would not go, waged a war to drive the Russians out of Manchuria.

As soon as war was sure, the Japanese began to land troops in Corea and sent a fleet to Port Arthur to keep the Russian warships from going out. February 7th the Russians marched into Corean territory. On the night of February 8th, without warning, three deadly explosions were heard in the harbour of Port Arthur at about half-past eleven, followed by a roar of guns which lasted until three in the morning. Dawn showed that two battleships and a cruiser had been destroyed while their Russian crews were unsuspicious that the enemy was near. On the same night two other Russian vessels were forced to come out and fight fourteen Japa-

nese warships at the mouth of the Corean harbour, Chemulpo. They were shot to pieces, retreated, and were destroyed by their own commanders.

Japan thus, at the beginning, had control of the sea, and was able to land her forces in Manchuria long before the Russians could bring a sufficient force to meet them.

The Japanese numbered two hundred thousand, with an even larger reserve army in Japan, while the Russians at the beginning had at the seat of war about a hundred and sixty thousand. Every attempt of the Russian fleet to escape from the harbour was defeated, and the Japanese tried again and again to sink vessels across the narrow strait. After two vain attempts they were partly successful on May 3d. In this last enterprise eight Japanese vessels were sunk across the harbour entrance, while their devoted crews went down with them, cheering and firing upon the Russians even as they sank.

On April 13th the Russian vessels had attacked the Japanese, but after losing their flagship, the Petropaulovsk, were forced to retire. On August 10th an attempt to break out, and to reach their own port, Vladivostok, met with even greater disaster—three of the Russians being sunk. There

were countless floating and sunken mines in the waters, and they did much damage, not only to the Japanese, who lost two battleships and three cruisers, but to the Russians' own vessels. Consequently the naval forces at Port Arthur were simply at a standstill, and the Japanese armies were free to carry out their work without fear of a Russian force being landed.

The Japanese armies, once landed, took the town of Dalny, a few miles from Port Arthur, and by sharp fighting drove the Russian troops into Port Arthur, at the same time surrounding the town so as to prevent help coming to the garrison. By September 4th Port Arthur was left to itself, besieged by eighty thousand Japanese, without hope of aid from outside—the only army within reach having been beaten or driven away about the middle of June.

The forts around the town were of stone and of cement, of enormous strength, fully supplied with heavy guns and ammunition. In addition to the main forts which crowned the highest hills there were, upon lower hills all around them, positions nearly as strong, forming a ring of fire without a weak point which the Japanese could take except by great losses.

Sure that no army from the outside could reach them for many weeks, the Japanese picked out their ground and began a series of attacks that gradually showed them which points of the Russian line were strongest, and what was the range of the Russian guns. The attacks were made by day and by night, but the night attacks showed that the Russians were fully provided with nine or more great electric searchlights, which, mounted on the heights, threw their clear light continually here and there over all the surrounding country. Whenever the moving light brought to view bodies of Japanese, instantly telephone signals were sent to the Russian gunners and a heavy fire followed upon the forces the searchlights had discovered.

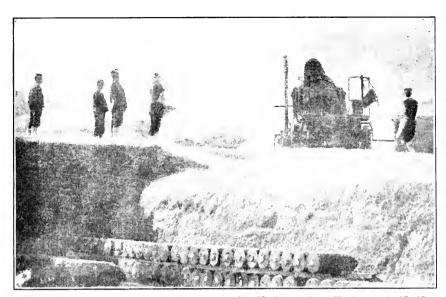
Whenever the companies of Japanese made their way near to the lines of forts, there would arise from the Russian batteries a great volley of star-bombs and rockets. These were prepared so that when they burst in the air they broke into masses of slowly falling stars, which, as Villiers, the war correspondent, writes, were bright enough to make the moonlight look gray. Consequently, the night attacks became nearly as costly as those made in broad daylight. So many were the forts, and so frequent the attacks made upon them during August

and September, that it is impossible to give here even a list of them.

The attacks would be watched by the Japanese from their own lines of batteries, and were vigorously supported by artillery fire. The earliest attacks during these months were made by small bodies spread wide over the slopes, but these showed that it was impossible for the bravest troops to live under the fire of the machine guns, which poured their shot in a thick rain upon everything that came within range.

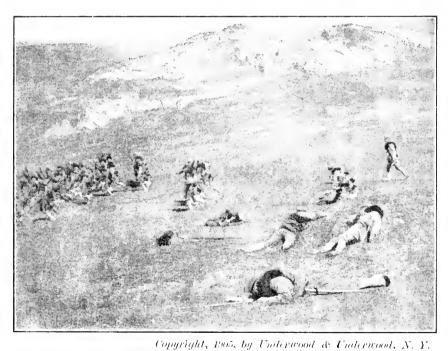
The only way by which these assaulting parties succeeded in taking the forts was by making rushes up the hills from one depression in the ground to another, sheltering themselves often in the pits left by the explosion of their own shells. But, in spite of their bravery (and Villiers says that the Japanese never retired), sometimes only a tenth of the attacking party succeeded in getting so near the forts that they were below the guns and protected in the deep ditches.

One such assaulting party, after reaching the ditch, were compelled to spend all day in its deep water, under the burning sun, surrounded by their own dead, and without hope of support by their own forces. This party, like most of the Japanese



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Japanese 11-inch Siege Gun Firing on Port Arthur



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A Charge of Japanese Infantry under Fire



attackers, had with them hand-bombs loaded with dynamite; and late that day a brave sergeant stole to the embrasure, or opening, in which was a machine gun and destroyed it by throwing in an explosive bomb. Others imitated him; the fire at that point was checked, and the reserves came up. The Japanese then dashed into the fort and captured it, much of the hand-to-hand fighting being done with the explosive hand-grenades, or dynamite bombs.

Another fort was upon a lofty rock which rose six hundred feet above the plain and enabled the Russians to see the advance of the different Japanese columns. Up this great rock the little Japanese crawled, and took it, after a terrible fight with its brave defenders.

The whole Japanese line of embankments and batteries was connected by telephone lines, the stations being in bomb-proof shelters close to the generals' quarters. Having command of the sea, the Japanese were constantly landing additional forces and bringing over artillery and plentiful supplies, while the Russian armies had to depend upon the great Trans-Siberian Railway, a single track road thousands of miles in length.

The Japanese recruits, as soon as they arrived, [293]

were trained in camps for the work of assaulting the forts, being taught by sham fights and by lectures from their officers just how to protect themselves in advancing on the forts and in fighting the Russian garrisons.

A story told by Villiers in his book on the siege gives a good idea of the devotion of the Japanese soldiers. General Nogi, the Japanese commander, told him that the few survivors of that attack wherein the sergeant had destroyed the machine guns, were being kept in camp expecting to be sent again to the front. Nogi, however, said that they had done enough, and would be sent home safely; but that he feared they would commit suicide if they knew this. General Nogi also told the same correspondent of his great admiration for General Stoessel, the Russian commander, who, he thought, had shown superb skill and splendid generalship throughout the defence.

So constant was the fire by day and by night that the Russian garrison were in a constant state of racked nerves. At the slightest sign of activity on the Japanese line a storm of shot and shell from the Russians was sure to follow. This constant pressure upon the lines, with the occasional taking of an advanced position, lasted until October, and yet

no position of great importance had been captured, despite the most desperate efforts.

The main object of the Japanese army was to get possession of a certain fort upon the most commanding height of all, which would enable them to place guns where they would be able to shell not only the town of Port Arthur, with its arsenals and magazines, but, especially, to destroy the Russian fleet where it lay imprisoned in the harbour. But it was first necessary to take the lesser heights that protected this great Wangtai fort.

Some of these were taken by assault, in which the Japanese used at least two methods new in that kind of warfare. As they charged upon the Russian ramparts, they brought up behind their own lines light bamboo mortars, wound tightly with ropes or bamboo fibres to make them strong enough to carry a light charge. This sort of light artillery was their own invention. Two men could carry a bamboo gun forward as fast as the assaulting companies advanced, and being loaded lightly, it would throw its missiles in a curve over the heads of their own men to fall among the Russians. But to this invention they had added another. Instead of firing explosive shells, they fired from these mortars light masses of burning gun-cotton, which, while it did

less damage than shells, on the other hand, by its blinding light and burning flakes, threw the defenders into disorder and prevented them from firing effectively. Before making an assault, the wire entanglements were destroyed by means of explosive bombs pushed forward at the end of long bamboo poles.

Those who were wounded in these terrible assaults had to lie all day where they fell. Even the devoted Red Cross hospital attendants would have met certain death if they had tried to rescue them. Consequently, searching parties set out by night, and whenever the moving searchlight came near them, they would fall to the ground, pretending to be the dead, and so remain until the light had passed on. Thus the rescue of the wounded was nearly as dangerous as attacking the ramparts.

Among the inventions used in modern sieges and employed by the Japanese during the siege at Port Arthur, is the hyposcope, a sort of telescope so arranged with mirrors that the observer sits safely behind an embankment while the hyposcope is bent so as to give him a view over the breastwork in front. The enemy's fire may destroy the instrument, but the observer is out of range. Protected by the embankment, he can give directions for the



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General Baron Nogi, Commander of the Japanese Forces before Port Arthur

firing of the guns. He is connected by telephone with the batteries, which may be (as they were at Port Arthur) far in the rear, and even on the other side of lofty hills from which their fire is delivered according to the directions given by the advanced officers.

By October 7th the Japanese had taken the outer ring of forts, but had convinced themselves that it would be impossible to take the stronger forts by means of direct attacks. They consequently decided to begin the regular digging of parallels and trenches against the most important of the Russian strongholds. These methods, of course, they had used to some extent before, but now they resolved to depend upon them. Brave as the Japanese soldiers had been, their losses had been enormous, and they met in the Russian soldiers perhaps less cleverness, but certainly equal bravery in the hand-tohand struggles. Some of the outlying forts had been taken and retaken four or five times. Thus it is told that in an attack on one of the three strongest forts, the Japanese made their way even to the very ditch, but found this was forty-five feet deep and fifty feet wide, and that their scaling ladders were too short for climbing the farther side. In repelling this assault at one time a company of

Russians, despite the terrific fire, took their position standing out clearly on the ramparts, and sent their volleys at the word of command as steadily as if upon parade. This bravery was cheered, even by their enemies.

It is said that against the Japanese attacks the Russians sometimes used torpedoes taken from their warships, launching them down hill against the ascending Japanese troops.

The English correspondent, Villiers, early in November, gave up his accounts of the siege, giving as his reason that he had already written an account of each various method of attack, and that what remained was merely a repetition of the same things on a larger scale.

Digging their great trenches parallel to the mountain fortress, and by night carrying forward the saps, or trenches, toward the fort, the Japanese had approached, by the middle of December, near to the two strong forts that alone remained untaken of all those defending the approaches to the chief stronghold. These two forts that still held out were known as the East and West Uhrlung, which is translated "Double dragon," the name being Chinese.

The East Uhrlung fort had been dug out on the [298]

crest of a hill in two stories, the upper one containing the heavy guns for distant firing, the lower story the machine guns and the riflemen, ready to rain shot upon the assaulting columns. The Japanese, from their nearest parallels, had succeeded by the end of December in carrying their tunnels beneath this fortress, and had dug out five mines and filled them with dynamite and gun-cotton.

On the 28th a strong force of four battalions was sent forward to lie in the trenches ready to attack as soon as the mines should be exploded. At ten o'clock in the morning the five mines were set off, one after the other, so quickly that there seemed to be one long detonation. A tremendous mass of black smoke sprang upward, and immediately the Japanese rushed forward to drive out the few of the garrison who escaped the explosion.

As soon as the Japanese had appeared on the ground in front of the fort they were met by so heavy a fire that nearly the whole force was swept away. A stronger attacking party followed, and after a long fight, advancing slowly under cover, succeeded in reaching the crest of the hill and digging intrenchments beyond the moat of the fort. But before they could take the position, of which the explosion had left only the rear walls standing,

they had to bring up artillery, one mounted cannon and several magazine guns. With these they succeeded in driving out the garrison, who, however, took refuge in their barracks built of concrete at the rear of the fort. In the evening the Japanese attacked these barracks with their dynamite handgrenades, and finally drove the defenders out. But these brave Russians, before they retired, poured petroleum over the place and left it in flames.

In this fight two hundred of the garrison were killed in the explosion, two hundred in the later attacks, and two hundred more made their escape. The Japanese lost a thousand killed and wounded.

But after this victory there remained only one of the supporting forts.

This second Uhrlung fort had also been undermined, though to advance to the fort and to carry mines forward had cost months of work and heavy losses in lives. Again and again the path of the mine had to be changed to avoid the Russian countermines. But two days after the taking of the East Uhrlung fort all was ready for the blowing up of its western companion.

On the last day of the year 1904 two battalions of the Japanese being ready for the assault, two mines were set off at 10 A.M., and the explosion of

these was followed by an even more fearful detonation. As soon as the ruins were clear of smoke, the Japanese rushed forward, one toward the front, the other toward the rear of the fortress, or, rather, of the crater where the fortress had been. They met with absolutely no resistance. Not a Russian was to be seen. But after a little delay a white flag was thrust out from the ruins of the great barracks of the fort, and it was found that one hundred and fifty-nine of the garrison had been entombed in this ruin by the explosion of the Japanese mines and by that of the fort's magazine, which had followed. In order to extricate these men the Japanese had to send their own engineers, who with dynamite blew an opening through which they rescued the Russians. Thus fell the second of the outlying defences of the great Wangtai fort.

The Japanese had already advanced close to this last stronghold, and had even succeeded in mining the trenches in front of it, at the foot of the hill whose crest it occupied. These were blown up and occupied by a party of Japanese on the same day that saw the taking of the second Uhrlung fort.

On the first day of 1905, shortly after nine o'clock, two strong bodies of Japanese were gathered at the

foot of the hill leading up to Wangtai. Many heavy guns had been brought to bear, and now these opened, sending showers of shot and shell against the stronghold in order to prepare for the Japanese advance by dismounting guns, breaking the nerve of the garrison, and, if possible, breaching the walls.

A fine account of the attack on these last three forts is given by the war correspondent, W. Richmond Smith, in his book, "The Siege and Fall of Port Arthur."

In speaking of this final assault, he says:

The fight was a splendid one to see.

From the time the advance began the assaulters were in plain view, their dark uniforms and glittering bayonets showing up against the lighter background of the steep hill slope. Like swarms of ants the black bunches of men worked slowly upward in the direction of the battery position upon the crest, which all the time resembled the crater of an active volcano, from bursting shrapnel and heavier shells. Many wonderful sights this siege had afforded, but this last scene in the last act of the great drama was more fascinating than anything which had preceded it.

The very manner in which those Japanese soldiers wormed their way inch by inch toward the crest, dying as they crawled, told the observer even that if all other attacks had failed, were almost bound to fail, this one was

just as sure to succeed. Nothing short of absolute annihilation could have stopped those men at that time in their slow upward climb, for the end, the very last of the awful siege, lay at the top. And when it did come it was superb, that end.

Only a short twenty yards separated the leaders of the nearest bunch of men from the goal. It was then about 3.30 o'clock in the afternoon. Half an hour was spent in the exchange of dynamite hand grenades between the assaulters and the garrison. Suddenly a Japanese officer rose from his crawling attitude, waved his sword high in the air, and made straight for the crest. He was followed closely by twenty or thirty men. With "Banzais!" that could be heard for miles the crawling hundreds rose to their feet and went to the crest like a whirlwind. In the midst of it all there was a loud explosion. The Russians in retiring had fired a mine under the battery position, but it was timed too soon and did no serious damage. Nor did it stop the assaulters for a second. Through the smoke and dust they went, and Wangtai was theirs at last.

The possession of this hill meant not only the destruction of Port Arthur, but of its supplies, of all the other forts and the Russian vessels that remained in the harbour. Further resistance would have been mere slaughter, and the negotiations for surrendering of the stronghold at once began, final terms being signed on January 2d. During the siege the loss of the Russians exceeded fifty

thousand, including two generals killed and four wounded out of ten. The Japanese loss was even greater, but they deny that there was any unnecessary sacrifice of the soldiers' lives. Stoessel, the Russian commander, declared that he had fourteen thousand sick in hospital, that the garrison suffered terribly from scurvy, and that the surrender was necessary as soon as the Japanese had their great eleven-inch guns placed to command the town, their shells causing widespread destruction.

This account of the siege of Port Arthur does not, of course, speak of the taking of even the more important points before these last three attacks. The object has been to show the use of modern methods in detecting and resisting attacks, and also to point out that, against modern artillery and small arms, the only sure method of taking a stronghold is by the slow, regular approach in trenches, followed by mining and the blowing up of walls.

Mr. Richmond Smith closes his account of the taking of Wangtai by the suggestion that possibly the world will never see another siege wherein these methods are used, his idea being that attack by airships dropping explosives will take the place of mining. But it may be that the coming of air-

ships into warfare will result only in sending defenders more deeply under ground.

The art of besieging has now been followed from its first form, the mere rush of an armed mob, to the most modern forms of all attacks, wherein the telephone, searchlight, modern explosives, and scientific mining are used so skilfully as to insure, in time, the fall of any unsupported fortress.

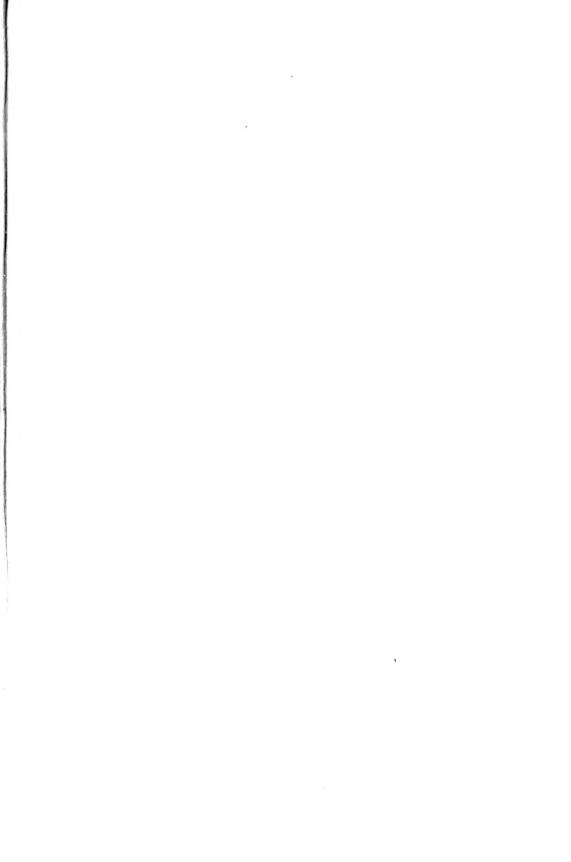
It only remains for modern science to discover a means for avoiding warfare entirely. No one doubts it is a most wasteful, cruel, and wicked means of settling disputes. But—the way to put an end to warfare remains to be discovered, and meanwhile it is the duty of nations to prepare for war until peace is sure never to be broken.

THE END











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